

Original Correspondence.

THE SMOKE NUISANCE ABATED.
TO THE EDITOR OF THE MINING JOURNAL.

SIR,—Observing that you propose giving the discussion, on the 11th inst., on my paper read at the Institution of Civil Engineers, I beg you to accompany it with the following explanatory remarks. Letters were read from Mr. Fairbairn, of Manchester, and Mr. Muir, of Glasgow. Mr. Fairbairn, while he liberally did justice to the successful efforts made by me on the subject of combustion in furnaces (not in the Pridaux style, as exhibited in a late correspondence in your Journal, but in the terms of a gentleman and scientific enquirer), submitted the point on which we differed—namely, the area of permanent aperture for the admission of the air to the gases in the furnace chamber. In Mr. Fairbairn's letter, then read, he submits that one square inch of permanent aperture for each square foot of furnace would be sufficient. I pointed out, that to allow the 100,000 cubic feet of air required for the 10,000 cubic feet of gas generated from each ton of coals to find admission, from four to six square inches for each square foot of grate surface was absolutely required, according to the gas-generative quality of the coal, and the extent of draught. I showed that a lesser area would be physically inadequate to the admission of so enormous a volume of air, unless it entered with a velocity four to five times greater than practice showed to be the case. On this point, I stated, the great mistake of engineers rested; and further, that not only were they indifferent as to the quantity, but to the mode of introducing it; yet that the one was just as essential as the other, and that unless both were correct perfect combustion could not take place.

I further pointed out, that the only test by which either could be ascertained, or proved, was the pyrometer. The admirable one invented by Mr. Houldsworth, of Manchester, I then had on the table, and by the aid of the mere flame from a spirit lamp showed how sensitive and accurate it was in its action. I pointed out that the mere colour of the products issuing from the chimney was not only a fallacious, but a very erroneous test. I then observed on the absence of such a test from the numerous reports of the action of different patent and other furnaces; and that even the furnace used in the parliamentary enquiry was without such a test, and therefore wholly unworthy of reliance.

Mr. Muir's letter stated, that too much was said about the chemical part of the question, and that it thereby became complicated. No doubt that was the case with those who, like the country justice, did not like to hear both sides of a question, as it made an otherwise plain story so complicated that it quite puzzled him. So there can be no doubt that the omission of the part of *Hamlet* from Shakespeare's tragedy would render the plot less complicated. However, as the whole question of the combustion of the gases in a furnace was a chemical question, and none other, such objections need not be replied to.

The models exhibited showed the simple manner in which the air could be effected—namely, by introducing it on the principle of the Argand gas-burner, by numerous small divisions, films, or jets; the object, and the only object in which human aid could be of any use, being the bringing the gas and the air into the most intimate mixture, and with the greatest rapidity.

Mr. Muir's letter broadly stated, that "the admission of air invariably diminished the evaporative power of the boiler." Strange assertion! The conclusive answer, however, to which is the following extract from Mr. Fairbairn's printed report of the result of many experiments made by Mr. Houldsworth, and which he had himself witnessed. (This report is now published by Weale, Holborn.) Mr. Fairbairn described the difference in the effect when the air passed through the bars alone, and when it was admitted as recommended by me.

He observes, that "on comparing the diagram (marked by the pyrometer) when no air was admitted from the asphalt, with the other with the admission of the air through a diffusion plate behind the bridge, as recommended by Mr. Williams, the former indicated a defective state of the process, and the disparity as to the difference of temperature was very great." He further states, that "in experiment No. 1, 5.05 lbs. of water were evaporated by the pound of coal, and in No. 2, one-half more, or 7.7 lbs., is the result." Mr. Fairbairn then (instead of feeling it "to be a duty he owed to the public to caution them against this scheme of Mr. C. W. Williams") observes, with a truth-telling candour, that Mr. Houldsworth estimates the advantages gained by the admission of air (on Mr. Williams's plan), when properly regulated, at 35 per cent.

No more need be said, except to place the practical accuracy of Mr. Houldsworth, and the high standing and character of Mr. Fairbairn, in strong contrast with the efforts at detraction made by imitators, pretenders, and quacks.—*London, April 18.* C. W. WILLIAMS.

INSTITUTION OF CIVIL ENGINEERS.

The meeting of members on the 11th inst. (Mr. JAMES SIMPSON, president, in the chair) was entirely devoted to the discussion of the papers by Mr. J. Simpson, jun., and Mr. C. W. Williams, "On the Management of Engine and other Furnaces, and the Prevention of Smoke," which were published in last week's *Mining Journal*.

An explanation was given (by Mr. C. W. Williams), by means of a diagram, of the several divisions of the process leading to the combustion of the gas in furnaces. The first division gave the mere relative gross bulk of gas and air required for combustion. In the second the mechanical mixture of the gas and air was described, such mixture, or contact of atoms, being essential to the subsequent chemical union. The third exhibited the several constituents of gas and air—the former being hydrogen and carbon; the latter oxygen and nitrogen; the relative volumes of each were given, and it was shown that ten volumes of air were absolutely essential to the combustion of one volume of gas. The fourth division showed the proportions in which those constituents combined. The nature of flame and smoke was examined; showing that the intense heat caused by the combustion of the hydrogen was the direct cause by which the temperature of the carbon was raised to that of white heat, which produced the luminosity of flame.

This process was illustrated by reference to the mode of producing the intense heat and luminosity required for the oxy-hydrogen microscope. In the latter the piece of lime, or carbon, on which the heat was projected, was instantly raised to the temperature of extreme luminosity, either the lime, or carbon, however, suffering rapid combustion. In the former the carbon of the gas was raised by the same means (the combustion of the hydrogen) to the high temperature, but could not suffer combustion until it was brought into contact, in its turn, with its equivalent of the oxygen of the air.

If, however, that supply of air was not provided before the carbon lost its high temperature, it returned to its previous and natural state of a black substance, and gave the black character to the products called smoke.

The first important condition was then shown to be the providing the required quantity of air. Reference was then made to the area recommended by some authorities as being sufficient to allow the quantity to enter a furnace. It had been considered that even half a square inch of aperture for each square foot of furnace grate was sufficient for the combustion of the fuel. This was, however (by Mr. Williams), stated to be insufficient for practical purposes. The proper area for admission being from 4 to 6 square inches for each foot of grate, according to the extent of draught and the nature of the coal.

This serious difference was supposed to have been caused by an erroneous calculation of the rate of the current of air entering. For if half a square inch of area was all that was allowed, the air must have a velocity ten times greater than could be shown to have been ever attained.

Thus, supposing a furnace to be 4 ft. by 2 ft. 6 in., equal to 10 square feet of bar surface, this would effect a combustion of 2 cwt. of coal per hour, and require, for the gas alone a supply of 10,000 cubic feet per hour, or for 20 cwt. of the coal 100,000 cubic feet. The following comparison of velocities of the entering air for the supply of the gas, gave some idea of the cause of underrating the required area of admission:

Air aperture per square foot of grate.	Velocity of draught per second.	Quantity of air per hour.	Quantity for each ton of coal.
6 square inches.	at 5 ft. per second.	7,500 cubic feet.	75,000
6 square inches.	at 10 ft. per second.	15,000 cubic feet.	150,000

Then, if the area were reduced to half a square inch, it would require a velocity of 50 feet per second to provide for the admission, within the given time, of the necessary quantity.

By close observation, by means of an anemometer, the velocity of the entering current was estimated at from 8 to 10 ft. per second, if the draught was good; and from 5 to 8 ft. when it was but moderate.

Again, it was observed, that by admitting the air in films through numerous thin divisions, the velocity was necessarily reduced, by mere friction through so many half-inch orifices, as were exhibited in the models and drawings on the table.

The mode of admitting the air by numerous small orifices, as practised by Mr. C. W. Williams, was then considered, and it was shown that the great object to be effected was the division of the air on its admission to the furnace, so that no more atoms were brought into contact with the atoms of the gas at any one moment than were required for their successive union and combustion. If this were the case, combustion and heat would be generated continuously as the gas and air came into contact; but, however, the air entered in a body, or even in a film, in larger quantities than could be taken up by the gas, before the temperature was lowered, a refrigeratory effect must be the consequence—smoke would be formed, and fuel would be wasted.

It was pointed out (also by Mr. Williams) that the phrase "burning smoke," was improper, because the smoke did not exist, until the gases had left the furnace; this was demonstrated by a diagram, showing that on distilling coal in a close vessel, and firing in a small quantity of air, a jet of gas issued, which, on ignition at the orifice, was almost colourless, then merged into flame, and ultimately became opaque

smoke. It was stated (in a letter then read), as an argument for the necessity for some stringent measure, with respect to the engine furnaces, in all large towns, that in the last nine years, between 1845 and 1854, 801 new chimney-shafts have been erected in the metropolis, for manufactories, breweries, &c. Some few of them might have been merely rebuilt, after destruction, but the large majority caused additional impurity in the London atmosphere. From 1845 to 1851 the greatest number built in one year was 90; but in 1852, 111 were constructed, and in 1853 the number rose to 123.

It was contended (in a letter from Mr. Muir, of Glasgow) that in dealing with the smoke question too much stress had been laid on the chemical part of the subject, as also that the statement of its being "impossible to burn smoke" had complicated that which was, in itself, a simple question. All that the public cared about was, that by some simple means the black, or brown, visible smoke should be prevented from forming, or be consumed, if its formation was incidental to perfect combustion. The air necessary to perform this could be admitted anywhere; either through a split bridge, by the fire-door, by an infinite number of holes, between plates with narrow spaces, or by others arranged like Venetian blinds. Practically, the end could be attained by the mechanical systems of Jukes, Hazeldine, Hall, and others, or by the double furnace boilers of Galloway, Rose, McGavin, and others, or by the systems of Williams, Pridaux, and many others. The objections alleged against all these plans were illustrated, and it was stated by Mr. Muir, that with ordinary boilers the admission of air invariably reduced the evaporative power, or caused waste of fuel, unless there was a sharp draught, and space boiler power; but that when these latter requisites were secured, the air might be admitted in any way practically found most convenient.

The arrangement proposed by Mr. Pridaux was noticed also by Mr. Muir, as the most creditable mechanism yet brought forward, but its neatness was its only recommendation, as it could not improve the draught, nor could it aid in "burning smoke" better than would be done by merely leaving the furnace door ajar. The remarks of Mr. Muir, in such a manner, that the early smoke from one oven mingled with the later development of gases from the other oven;—by this means the appearance of any opaque smoke was entirely prevented.

In reply to the arguments in the papers, and to some of those used by the speakers, it was urged that, even with the best construction of furnaces, skilful firemen must be employed, and that it was desirable the subject should be divested of all complexity, and should be rendered clear to the meanest capacities. Instances were given of the advantageous employment of mechanical methods of stoking, particularly at the works of Messrs. Truman, Hanbury, and Co., where 16 sets of Jukes's apparatus had been used for several years, and had induced a great saving of fuel, as well as insured undeviating regularity of temperature in the furnaces. The self-acting systems practised by Brunton and by Parkes, many years since, were alluded to, and the reasons for their use being discontinued were given; the alleged defects of these systems were shown not to exist in the apparatus of Jukes, Hazeldine, and Hall, but that even they were up to this time useful for use in steam-vessels, where it had been imagined that mechanical means of firing would have been most advantageous, but where, in reality, the heat in the furnaces was so intense as to destroy any machinery attached to the fire-bars.

The access attendant on Mr. Houldsworth's system for preventing smoke, and on his invention of the metal rod pyrometer, was described. The general result of the investigation appeared to be, that, although for certain large establishments the mechanical methods of firing were successful, it could not be expected they would be adapted for every furnace in the smallest manufactory; therefore, a good system of mingling a due proportion of atmospheric air with the gases evolved during combustion was essential, and the method employed by Mr. Williams appeared to fulfil the required conditions.

LIVERPOOL POLYTECHNIC SOCIETY.

At the last monthly meeting of this society, held at the Royal Institution (Mr. GRANTHAM in the chair), the subject proposed for consideration was the PREVENTION OF SMOKE.

Mr. A. LEIGHTON proceeded to explain the theory of Mr. Pridaux for the prevention of smoke, illustrated by a model. The invention consisted of an apparatus to be affixed to the fire-doors of furnaces, with the view of regulating the admission of air. The front of the apparatus consisted of a series of shutters, traversing in axes, so as to be capable of opening and shutting like Venetian blinds. Behind these moveable valves, or shutters, is a series of parallel plates, fixed at a slight angle; and then a second series, fixed at an opposite angle; and then a third and wider series of parallel plates, which do not incline, with air spaces between each series. By means of the slight inclination in opposite directions given to the first and second series of plates, the direct radiation of heat from the fire outwards is prevented, although the air has free ingress, and the inclination being at an angle to the axis of the line of draught, has the further effect of causing the current of air slightly to impinge upon the surface of the plates in its passage, by which means the heat is more effectually extracted. The self-closing of the shutters is effected by a lever, connected with a piston traversing a water cylinder, which piston, by means of a suitable valve, allows a free passage to the water from above to below, but resists its passage in the opposite direction, the motion being regulated by a screw.

The SECRETARY offered some observations in reference to the merits of Mr. Pridaux's apparatus, in point of originality, which he did not consider to be great; and he read a letter from Mr. C. W. Williams to the chairman of the Polytechnic Society, in which he claimed the arrangement of the bars as the same in principle with his Argand furnace.

Mr. CURTIS wished to put a question with reference to the time occupied in the descent of the piston which regulated the closing of the bars in front. He presumed, that when the regulator was once set it would not alter until reset; so that, if it were set to ten minutes, and the stoker should happen to put on a larger quantity of coal, the working of the machine would be affected.

Mr. LEIGHTON said it would not work so perfectly, but the stoker had the remedy in his own power. Suppose, by his putting on too much coal, a larger quantity of air were required, he would simply have to tighten the screw, and the piston would descend more slowly.

Mr. SCOTT saw no reason to doubt that when the blinds were open the admission of air would cause the consumption of smoke. This was done already. Mr. Leighton said there would be a saving of 10 per cent.: that would depend upon the method of firing. The fireman must determine the quantity which was necessary, and regulate the valves accordingly. He thought the valve was wrongly placed.

The CHAIRMAN asked Mr. Scott if he had any idea whether the delicate iron-work would stand the fire?

Mr. SCOTT said there was no doubt the fire would have an effect upon it. The CHAIRMAN said some of the coal swelled very much in burning, especially the Welsh. Hence the great difficulty was to prevent the fire-doors being capsized. He should like to know what were Mr. Pridaux's views respecting the difference between hot and cold air.

Mr. LEIGHTON quoted a passage from Mr. Pridaux's book, in which he spoke strongly in favour of heating the air.

The CHAIRMAN said, it seemed too delicate for the severe work of steam-boats. With regard to heating the air, there was this to be considered.—To produce anything like the heat required, an enormous furnace had to be erected. As to the temperature; he could not help thinking that the air was not likely to be heated many degrees, and that the heat would not be so great as the experiments tried, but in his opinion it would be heated very little indeed, even by the most perfect apparatus. Judging from analogy, he should say that it would not be more than 20° to 30°.

He (the chairman) continued:—They knew that a fire burnt more brightly in cold than in hot weather, which was opposed to the fact in question.

Mr. LEIGHTON replied. With regard to what had been said about the delicacy of the apparatus, he did not think that objection had much weight. The machinery was so simple that it could easily be repaired—almost as soon as putting in an old plate. The air spaces would also be useful in preventing the action of the fire upon the outside work. As to the question of originality, he thought it was quite unworthy of men of science to indulge in petty jealousies on that score. The dispersion of air in furnaces had been a subject of attention 40 years ago, which went, he believed, far beyond Mr. Williams's time as an inventor. Mr. Pridaux did not put in any strong claim to originality; what he did lay claim to was a certain combination which had not been thought of before. The principle was old, and open to everybody.

IRELAND AS A FIELD FOR INVESTMENT.

SIR,—In perusing the work lately advertised in your columns, entitled *Ireland Estimated as a Field for Investment*, by Thomas Scott, land agent, London, I find the following paragraph on Irish mines and minerals, and as it contains rather a remarkable statement relative to them, perhaps you will insert it, and thus put its correctness to the test of your more experienced readers:—

P. 17.—"The mineral wealth of the country is supposed to be very great, and it is beginning to be brought to light, and more fully realised." "It is a remarkable fact, however, which I have learnt from intercourse with several mining engineers of world-wide experience, as well as from conversations with upwards of 100 intelligent Irish and Cornish working miners in various districts in Ireland, that the veins, or lodes, especially of copper and lead, have not always been found to hold good, and increase in extent and richness as the workings descend, as is usually the case in Cornwall and elsewhere in England; but not unfrequently run out altogether, or become so impoverished as to have led to heavy losses in working, and to the abandonment of many mines."

Kilburn Priory, April 20.

JOHN TUCKER.

QUARTZ CRUSHING AND GOLD AMALGAMATING.

SIR,—So Berdan's machines have been at work, and, no doubt, they have been doing their best, at the Cwmheisan Mines; and Mr. T. A. Readwin has been so good as to bring us acquainted with the results. In plain English, it will be seen that two of these machines have been erected several weeks, and during this they worked about 100 hours altogether, and the whole of this time was occupied in experimenting upon the various auriferous minerals found there. Of course, it cannot be left for a stranger to prescribe the limit to such a use of expensive machines; on the contrary, it may be highly necessary to become increasingly familiar with their peculiarities, by perpetuating experiments with the machines. Their peculiarities? yes, their peculiarities—or, as Mr. T. A. Readwin is supposed, so euphronically, to render it, their "sportiveness"—are somewhat amusing to contemplate. No kitten ever sported more whimsically with its inane mouse than have these cast-iron basins sported with the expectations of whoever had a grain of faith in them. In London, how merrily those balls rolled on together, how very satisfactorily they got through their work! At Cwmheisan, again, they play their innocent gambles, are fed with the very best, the choicest food which that bountiful mine can supply; nay, they are there so pampered as to grow sulky with work, and spend days and power at doing absolutely nothing. What ungrateful varieties! In London, with what alacrity they produced gold—aye, and that in abundance—out of the identical parcel of matrix from which the melting furnace, aided by the cogent fluxes of the assayer, together with the keen, detectively delicate re-agents and skilful manipulations of the experienced chemist, could scarcely discover a trace of gold sufficient for them to savor by. O triumph! O Moses! How are the mighty fallen. Now, we find these "too much vaunted grinders and amalgamators" content to take rank a long way in the rear of the old "pestle and mortar," simply because that primitive "machine" is superior—i.e., gets out more gold from the matrix than do the "balls and basins" together.

This bulletin, too, tells us that the machines, poor things, are "sick"; they are troublesome "at night." Why not afford a suitable and sufficient light? It were a pity to hurry the innocents into premature oblivion by sheer parsimony. Those who are most interested cannot be short of gas already! I am aware that some persons have been very extravagant in the use of that article for puffs, yet every body gave them credit for having a good stock of it always on hand, or could have it replenished by the gentleman who sold them the bargain. It is melancholy to receive this official intelligence, and there to learn that these machines gave "nothing but a muddy mass of sickened mercury." "On Monday and Tuesday" they "gave no" signs of animation whatever. Of course, two days' work, at 50 tons a day, amounts to just 100 tons, which were the boasted capability, but are now the acknowledged inability of these machines; and the mining company's presumed gain is become a dead loss.

In this dreadful state of *extremis*, and in the bitter anguish of disappointment, we have "the science and skill of the country" challenged to a solution of the enigma. Enigma, quotha! It can certainly be an enigma to the simple Greens, of whom the celebrated Jenny Green, it is imagined, luxuriates in the enviable and proud relationship of *paterfamilias*, and Jolly Green is the supposed heir apparent. These Greens, when excited by pure sympathy will, no doubt, feel the peculiar personal applicability of this "challenge," and will at once trot out their medium of science to the puzzle, and of their learning to the rescue. Only let us extend our patience during one little week. I can have no doubt that there is already embarked "a great amount of talent upon the subject," and a beautiful "subark" it will be for dissection whenever the proper time arrives. At present, a consultation is what is contemplated; and by this time no doubt Mr. Berdan is there. That gentleman is a host in himself, at least if we allow the multifarious puffs oblique and puffs direct to be our guides to a conclusion. "Justus," too, must be there to do the "tall talking," and also others—*hac genus omnes*. I would willingly go with becoming patience for the result, and would hope to be instructed with the opinion to be promulgated of these sages. In the meantime, however, it might be simply suggested, differentially as a bare possibility, and with some degree of becoming hesitation, that the water at the Cwmheisan Mines cannot be congenial to the successful requirements of the patient, as it is rather more than hinted that there was possibly something in the London water which must have contributed in a highly essential degree to the invariable success of the hundreds of *dilectante* experiments made there. Perhaps some friend will send down a bottled of the patient—that is, if a stimulant be desirable—now that shares are quoted at a premium.—*Tolnes, Devon, April 17.* W. E. GILL.

P.S. If some people will inordinately raise that which is paltry by the roadside, and thrust it on the attention of travellers having cases, they must not affect surprise if those other people should condescend to accept the nuisance for a target as they pass it by. The latter are also apt to find motive for doing this appropriately, lest the former should boastfully fall on the weak as invulnerable the inflated object which, at best, deserves to receive only the fitting shafts of ridicule; it were quixotic to approach such things with an air of seriousness.

[ADVERTISEMENT.]

BRITTEN'S GOLD ORE MILL, ON THE PESTLE AND MORTAR PRINCIPLE.

SIR,—On my way down to Shrewsbury yesterday, I found a paragraph in your last Journal stating that another patent had been taken out for a new gold crusher and amalgamator, and that "it appeared from the drawings to be the most efficient and simple process yet introduced—being nothing more than an adaptation of the pestle and mortar principle." As the inventor of this machine, provisional protection having been granted me in February last, I was not a little surprised to see it noticed, as I have not authorised any one to make it public. My invention has been shown to many of my friends and acquaintances, and also to some who are strangers to me, and possibly it may so have been exhibited to your informant, when I was not aware of his presence. It has been my intention all along to make my machine known by the insertion of advertisements and drawings in your influential Journal; but I cannot undertake to do this so early as your next impression; and I must not be held accountable for any inaccuracies of description that may be supplied to you by the unknown friend who seems to have taken me in hand.

The history of this simple, yet, as I believe, most efficient machine, is as follows:—Having occasion, some months ago, to conduct some experiments with quartz by means of Mr. Berdan's instrument, it occurred to me to endeavour to adapt the principle of the pestle and mortar, as it alone seemed to possess all the requisites for a perfect pulveriser and amalgamator. I made some drawings, and submitted them to my engineering friends, who entirely approved of them in theory.

I then had constructed some small machines of 20 inches in diameter, the pestle weighing about 2 cwt., and found they answered admirably—the quartz being reduced rapidly, and to a fineness that can only be judged of by examination, and I enclose a specimen. The amalgamation also was perfect, for on several experiments I obtained in each case, I believe, all the gold there was. Knowing, however, how very unsatisfactory is the evidence afforded by model machinery, I determined to construct a full-sized machine, with a basin 7 ft. in diameter, and a pestle of 3 tons weight, and have it erected in London, before I made it known. This mill is now nearly completed, and I hope to have it ready for experiments in about a fortnight hence. I shall then invite inspection of it by all parties who may be interested; and if it succeeds I know I shall have it patronised, and if it fails I am content that it shall be condemned.

I felt a delicacy as to how I should, in the first place, make it known, because I have been so annoyed of late with the highly-objectionable course pursued by several of my rivals against brother competitors. Why not let us agree to stand or fall by the perfection or imperfection of our respective inventions? I am quite sure that calling other people names will not puff my machine. If I can win some of Mr. Berdan's golders by fair skill, I do not think he will—I am sure he ought not to blame me. Of one thing, at all events, both he and all others in the field may be sure—I will not try to beat them by mean disparagement and detraction. Let us fight each other fairly and honourably, and, like honest soldiers, shake hands in the intervals of battle. I propose my machine be constructed to give all my foes an opportunity of fair trial with me. The best sort of trial will be, that so many tons of hard quartz shall be raised, and a ton allotted to each inventor; and he who succeeds in pulverising it most completely in the shortest space of time, and with the least amount of motive-power, and the lowest-priced mill, shall be entitled to a marble statue in his honour, to be raised at the expense of the

*I heard a similar challenge from "General" Winchester, booming out from among the auriferous quartz rocks in the celebrated Grass Valley, California, where Berdan's machines are known. By-the-by, the General could supply a valuable certificate based on experience.

unsuccessful. I for one am ready to subscribe to this, and, of course, those who refuse to subject themselves to this encounter will show that they are an adverse result. I hope to have the drawings of my machine ready for insertion in your next Journal but one.

BASHLEY BARTON.
3, Grosvenor Lane, City, April 18.
P.S. The only description of the advantages of my mill that I can present afford time to send you is this:—The basin is fixed, and the mercury can be heated by a small charcoal fire applied round the pipe by which the mercury is drawn off. The mercury can be drawn off by a clock, if necessary, without stopping the mill, and perfectly free from the matter. The crushing surface—i.e., surface of contact between the pestle and the basin, or crusher, and the curve of the basin—is upwards of 2 ft. The pestle has three distinct motions: it rolls round the basin, it revolves on its own axis, and it has a constant slipping or grinding motion as it revolves. In consequence of the leverage obtained by acting on the handle of the pestle, very small motive power is required. It is estimated that a 5-horse engine will drive with great velocity a double mill, each pestle weighing 3 tons. The simplicity of the whole is such that it cannot possibly get out of order. The wear is equally distributed all round the pestle and basin, and the cost of the whole mill will not exceed 600 guineas each.

THE CRUSHERS.

Sir,—No argument is so self-condematory as that which consists in the imputation of motives; for they are mostly suggested by the analogy of motives which the accuser feels conscious of in himself. Messrs. Taylor and Sons were accused by a fictitious correspondent, in the last week's Journal, of being actuated in allowing me to erect my new crushing and amalgamating machine at the Colonial Gold Works, Rotherhithe, merely to gratify a spirit of opposition to others. That this is a frivolous and uncommercial idea of your correspondent, I am convinced; for no consideration, other than a conviction of the intrinsic merits of my invention, would have induced them to the arrangement. I took the model to their office without their previous knowledge of my intention; and it was not until they had carefully examined it that I could obtain their consent to be in the most remote manner connected with it. I pen this without the cognizance of Messrs. Taylor and Sons. I would not have responded to an anonymous writer had I been personally attacked.

R. COLLYER, M.D.
Norfolk-street, Strand, April 16.

THE CWMHEISIAN MINES, AND BERDAN'S MACHINE.

Sir,—Since my last, many persons have expressed their surprise at the extent of my ignorance on the subject of the amalgamation of gold. I am not ashamed to declare it, as by that means I am likely to obtain information from those who are wiser. I can truly say I am most anxious to be taught, as I happen to know where there is a great deal of gold, and I entertain a slight wish to appropriate it.

I trouble you to-day in consequence of allegations that I am interested in Berdan's patent, and, therefore, its advocate; and that "everybody knew what the results of operations with Berdan's machine would necessarily be."

To the first allegation I simply reply—I have no interest whatever in Berdan's patent. I see no reason to alter my opinion of the machine; it is mechanically right; but the process of amalgamation (by recent experience) is found to be capricious.

The second allegation I rejoice in, if true; inasmuch as somebody, from amongst the hydra-headed everybody, will speedily explain the retarding paradox.

It is a great mistake to suppose the gold question to hinge upon the merits of Berdan's machine, or any other machine in particular. The gold question can now afford to stand on its own merits. There are unbelievers, I know; but there have ever been infidels on higher and graver questions. The comparative merits of rival machines have yet to be ascertained, and probably no existing machinery is universally applicable. The points to be considered in the valuation of any machine of the kind, with reference to local minerals, are—Will it yield a profit? and, if so, how much?—the greater profit the better machine.

I may mention, that in the course of the week, at Cwmheisian, gold has been obtained by washing, and a nugget of the size of a grain of wheat found in the river. Here is another evidence, were it wanted, of the existence of gold. Shall we, then, give up its pursuit because the amalgamating process is capricious? or shall we persevere in the use of a variety of means? Is the ordinary process of churning to be abandoned, because there is no uniformity of result? or are potatoes to rot because the usual mode of procuring them fails to secure the entire crop? The problem is not now, as heretofore, Where is the gold? but, How shall we obtain it? There is plenty of it, and (D. V.) we will leave no means untried in order to get it, the highest talent is pressed into the service; a legion of mercury doctors has arisen, and I am confident that the remedy, as far as regards amalgamation, is at hand.

I propose handing you next week a detailed statement of facts connected with the Cwmheisian Mines, and particulars of all experiments made, both with and without Berdan's machine; the scientific may then draw their own conclusions.

T. A. READWIT.
Winchester-buildings, April 21.

GOLD IN ENGLAND.

Sir,—A Subscriber mistakes: I never for a moment supposed he was one of those who had given 24s. for a gilt farthing; I gave him credit for knowing better, and placed him on the other side, persuading the horizontalists had bought the "security" too cheap, and endeavoring to raise a further 2s. upon it. His reference to the Poltmore is peculiarly unfortunate. Do we not all know the history of that poetic vessel, the *Albatross*, which, steering northward towards Indian Point, along the very track of the homeward-bound Australian and Liverpool vessels, escaped all perils, and was found to yield a profitable return of dust at St. Helena? But in the next cargo, less favoured, the figure of tin gold became, like the figure of Prior's nut-brown maid, "fine by degree, and beautifully less." Happily the gift of 500 gilt farthings stimulated genius to devise means to grasp the waist at the very vanishing point, and further reduction in the figure was to be paradoxically stopped by reduction on the spot. This rumour faded, and then followed a game at dip and ball between one Berdan and Perkes, for a wager upon odds. What now is doing? "Subscriber" wrongs Britannia in saying that Poltmore led the movement; but as he seems quite a glutton for instruction, we may hope his craving will be satisfied by-and-by. He tries the "soft-sawder" system with Mr. Hopkins. Another correspondent, "F. H." (Frederick Hall?), styles the author of the *Connection of Geology and Magnetism* a "doubtful witness." These different attacks show very great trouble from adverse winds. No doubt, if "Subscriber" can prevail on the Bank of England to take gilt farthings for sovereigns, he concludes rightly there will be plenty of gold to carry on the war. I have referred to Mr. Readwite's bulletin, but all I can discover is that Berdan's machines have caught the nightmare—an "omen." I suppose, of the horrors of the victimised. He informs us he is no subscriber to the Britannia; he does not like his own writings well enough to subscribe his own name. To what, then, does he subscribe? Of this I am certain, that he tells us correctly he will abandon the idea of gold in England as soon as that idea ceases to draw.—April 19.

DAVID MURPHY.

PORT PHILIP GOLD MINING COMPANY.

Sir,—I am perfectly inundated with letters from dissatisfied shareholders, requesting me to convene a meeting. Past experience has taught me, after an expense of upwards of 200l., and an enormous amount of fatigue and vexation, to lend a deaf ear to these complaints. People suffer themselves to be done out of hundreds, and even thousands, as easily as geese are plucked of their feathers, without combining together at a small cost of money and time to endeavour to remedy the evil. The shares have dwindled to the miserable figure of 6s., because there is no confidence in the present management. The shareholders should meet, and take measures to restore confidence. Mr. Hopkins having returned to London, the directors should give a clear and straightforward report of the present state of things and the future prospects, similar in form to that lately issued by the Colonial Gold Company, and especially explain to the shareholders why funds were not sent out in time to buy gold in the same manner as the Colonial Company. How were the funds employed at that period? These questions should be put to the directors by a deputation, and a personal request of all Mr. Hopkins's despatches during his mission, together with the reports, &c., and their respective dates; and what were inserted in the *Mining Journal*, and other papers, in corresponding periods. In the event of a refusal, an application should be made to Mr. Hopkins for a copy of all his papers, showing what has been done,

what is doing, and what must be done to ensure confidence at home and influence in the colony, as well as the retention of proper agents. Perhaps it would be advisable to apply to him at once, and not waste time parleying with the directors. I am sure these proceedings would be well supported; and the exposures which would then certainly come to light, would lead to useful purposes—such as a total change in the officers and management, and then we should have a chance of getting on. I throw out these practical suggestions to my numerous correspondents; and I hope they will be "up and stirring." My state of health will not allow me to take any active part in the movement, beyond attending the meeting.—King's Arms-yard, April 20.

H. GURDALL.

MR. CALVERT'S COMPILATION ON GOLD ROCKS.

Sir,—The following extracts will give some idea of the character of Mr. Calvert's book on *Gold Rocks*.—"The St. John del Rey Mine: composed of a soft kind of gneiss, full of narrow veins of quartz," &c. "The gold quartz of Marmato contains only a small portion of metal. Here the gold is found in quartz in sandstone!" (Pages 228 and 230). What will Mr. Hopkins say to this? The description of some of the English localities is so incorrect as to show that Mr. Calvert, with all his Australian experience, has much to learn to be equal even to some of our common miners. Much has been said in writing regarding the Silurian region. I should like to know in what part of the world gold has been found in the Silurian division of the sedimentary series, or, in plainer words, in fossiliferous rocks. Mr. Calvert should first succeed in discovering and working a remunerative gold mine in Great Britain before he began to criticise the opinion of those who have laboured so long in practical geology. Something more than the mere picking up specimens, &c., which have been frequently done before, and collecting imperfect and loose records of gold finding, are required to justify the tone and assumptions of your correspondent, Mr. Calvert, in his communication.—April 20.

A. MINE CAPTAIN, ACCUSTOMED TO GOLD MINES.

MR. CALVERT, AND GOLD IN WALES.

Sir,—In perusing the columns of your valuable Journal, to which, amongst many others of my countrymen, I have lately become a subscriber (being much interested in the various scientific subjects of which it treats in so able a manner), I was struck by a letter, attacking in a most uncalculated and ungenerous manner the author of that interesting work, *The Gold Rocks of Great Britain*—a gentleman, with the characteristics of true science, striking out for himself, and the mining world in general, a new path at our very feet, in the Silurian hills, in addition to their other attractions, are richly impregnated with gold. Had Mr. Calvert's object been to mislead, I take it he would have selected his field in some more distant region, and not in North Wales, where any sceptic, by an easy journey by rail, may in a few hours satisfy themselves as to the truth of what has been advanced. Why should a gentleman, labouring to produce to his country so valuable a result, working, as he does, *con amore*, be attacked as a charlatan?

For my part, I am not surprised at the severity of your correspondent "Stilton," and laying on the lash as he has done. My chief object in addressing you, is to draw your attention to the fact, that the author of the work on *The Gold Rocks of Great Britain* is no idle dreamer—or, if he is, that he has a host of good company. A number of scientific writers have from age to age given us the impression of their firm convictions that Britain, and especially North Wales, contains gold; many are quoted in the above-mentioned work, and some may have escaped Mr. Calvert's researches. The late Rev. E. Williams, of Lampeter, one of our most talented countrymen, has justly observed, in his work on the *Ancient British Gold Mines*, that it was a maxim never departed from amongst the superior bards, that nothing but truth should appear in their writings, and that the great embellishments to the minor poets, and they have furnished us with innumerable proofs of the great abundance of gold and silver in their times, and preceding ages. It is also a matter of history, that Cynobelinus and his successors were obliged to pay a heavy tribute in gold pieces to the thirteenth of the world. It is highly improbable, from the state of society in those early times, that commerce had made any considerable progress among them, or that they had any valuable commodities to exchange for the precious metals, and the idea, therefore, naturally forces itself on the mind, that they must have had the mines at home, and the metal in abundance; for we are pretty well assured that they possessed none of the appliances of modern science and ingenuity for its extraction.

Mr. Williams gives too many bardic quotations to prove the abundance of gold in the early ages of Britain for me to occupy your valuable space; but you must permit me to give you one or two.

Translation from Anwyn, a Bard of the 6th century.

"To Cathaeth's vale, in glittering row,
Twice two hundred warriors go;
Ev'ry warrior's manly neck
Chains of regal honours deck;
Wreath'd in many a golden link,
From the golden cup they drink," &c.

Llywarch Hen, a bardic prince in the year 550, asserts that he had four-and-twenty sons, each bearing the golden chain, or wreath. Golden cups, horns tipped with gold, gold spurs, solid gold shields, and various golden ornaments, are frequently named in the bardic poems of the 6th and 7th centuries.

The subject of the discovery of gold in Wales is a momentous one, and when coupled with the extraordinary discovery in other parts of the world, it tends to impress the ordinary mind with conviction that Providence is wonderfully working around us for some wise purpose,—let us hope it may be for our good as a nation. I trust you will pardon my prolixity.

ARNDREW UCHWART.

IS CELESTIAL MAGNETISM OR GRAVITATION THE PRINCIPLE OF MOTION?

Sir,—The nature of comets having been the ruling pastime of my leisure hours, since that of 1811 appeared as though indicating an infinite space beyond the starry zone, permit an old correspondent, now that similar phenomena attend our present visitor, and riper reason confirms my belief of their being magnetic forces originating motion, to ask your indulgence of a corner of your paper for a few remarks at this juncture of philosophical enquiry on the subject, not altogether uninteresting to the public. The great first law of nature, as propounded by Kepler and Newton, as we all know, Sir, teaches that gravitation alone is the first law of motion, the sun being the focus of the planetary forces rotating in the plane of their orbits. Now, with due deference to such authorities, seeing how eccentric are the trajectories of comets, let us ask ourselves, as thinking men, whether the dictum of these truly great men may not be demonstrative evidence of planetary motion, when the presence of them is within the solar system, tells too plainly that they, too, must be subject to a law beyond that law of motion which these philosophers so nicely define, and consequently may constitute a link in the chain of that power which binds us to the Deity, around whom revolves the mighty monad? Admitting the feasibility of such a principle, the only question to be determined is, whether these bodies are of matter or a magnetic nature indispensable to their existence. This twofold principle of nature being admitted, I do not see why these impalpable bodies should not be considered in relation to one another what the vital principle is to human nature—the one circulating its magnetic fluid through celestial, as the other does through terrestrial, life, so constituting universal equilibrium.

Assuming, as I say, this principle of magnetism to be the life or law of motion, it is surely rational to suppose that magnetism is capable of moving otherwise than in the plane of planetary motion. For example, presuming the sun to be a substance enshrouded in the magnetism of one of these bodies projecting into space, after gathering in its attractive gyrations a constellation of the heavenly bodies, I do not see why such a volume of magnetism may not move in an elliptical orbit 23½° north and south, at right angles to the ecliptic, and so constitute the astronomical equivalent of time and the seasons as comprehended in our celestial, and so effect the fixation of the longitude. Be this, however, as it may, is not science at the least, now that the teeming world is rife in thought of these bodies, bound to search out in what degree the habitable world is affected by them? Varying from known periods of 10, 50, 100, 500, to that of 6000 years, perhaps, as I say, generating our solar system, there is little reason for withholding our consent of a magnetic hypothesis when it is considered how much is wanted at times to replenish the electric fluid consequent upon the expansive process of nature perpetually absorbing this ether. Besides, as we look complacently upon the tidal theory of the earth, surely it is not unbecomingly too much out of the way of science to ask of it at the least, investigation of a magnetic theory by which celestial and terrestrial order is maintained in a due equilibrium of their forces.

That these few hints, perhaps too loosely thrown together to command otherwise than a passing glance of professorship, may nevertheless set the general mind a thinking on a subject certainly but little understood by the many, may I venture to hope, in aid of the elucidation of the nature of these bodies, that a somewhat more enlightened reasoner than myself will condense, through your columns, to take up the subject for the general good; for be assured, Sir, that no honour is so fairly won as when scientific truth, for some reason abandoned, descends from its exalted station, and brushes away, perhaps as in my lucubrations, the sophistries of a fool, to exhibit truth in the simple guise of its own splendour.—Grove End, Highgate.

A. B. C.

THE NATIONAL BRAZILIAN MINING ASSOCIATION.

TO THE SHAREHOLDERS OF THE COCAES AND CUTARA MINES.

GENTLEMEN.—On passing through Cutara a few days since, I found, on calling at your establishment (which has been of so many years' standing), that the mine is entirely "knocked up," and the place abandoned to a few old inefficient blacks to watch the property. It is a matter of no little surprise to those so well acquainted with the mines in that locality, that at the moment when all the eastern ground at your mine is laid open, the company, at a time when they never more wanted a good mine, should close their eyes to so important an object, and abandon the mine altogether to the Brazilian shareholders, one of whom, who has worked more extensively than the others, having supplied 24 stamp-heads for a period of seven years, assured me he seldom realised less than half an ounce of gold per ton of ore. Much blame must be attributable to some department of the company's past management. It was anticipated by the old captains that the eastern ground at this mine would produce much richer; and for that reason a deep adit was commenced, and driven a great distance from the Mocabaes River, close to the company's stamps, but was, unfortunately, for some reason abandoned. If this work was again resumed, and the object of the old captains accomplished, and the mine placed under the management of an experienced mining captain, it might in a short time be brought to give profitable returns. During the time you would be engaged driving the deep adit, there can be plenty of stone obtained from other parts of the mine to supply the stamps, to help the expense of the establishment; your mine, as a rock mine, is considered by those best acquainted with it to be only second to Morro Velho. For further information respecting the mine in question, I would refer you to two of your old captains (Thomas Treloar and John Hitchens), who left for England last month, and who, no doubt, would render you all information necessary on this point.

MARCH 10.

COOSHREEN MINES.

Sir,—Having seen in the *Mining Journal* of the 8th instant a report from Capt. Skimming, I will thank you to insert the following remarks. First, Capt. Skimming believes that "the productive parts of the lode lay all to the south, and had been touching in the workings under the adit level." If Capt. Skimming had examined a cross-cut in the 5 ft. level, he would have seen that the lode was intersected, and the width and character ascertained; he might also have seen it intersected in several places above the adit level. It is, therefore, an "Hibernianism" to take the credit of suggesting what had already been done. Second, what Capt. Skimming

calls Thomas's lode is the old lode, however 16 fathoms south by a slide; it is not at all entangled in the slide, nor did the parties working the mine "lose their way." The fact is, that the workings under the adit were made in the slide, and not on Thomas's lode, which is as plain to be seen as the sheet of paper on which I am writing; consequently, it required no extraordinary degree of "practical knowledge" to find that which was never lost.—W. THOMAS: Kenmare Mine, April 17.

THE TRELEIGH CONSOLS MINE.

Sir,—The report in your last week's Journal not being clearly intelligible to parties who were not present at the meeting, you will, I am convinced, allow me a small space in your next Number for a few explanatory remarks. I stated, in answer to questions by shareholders, that in consequence of having made an important discovery in the 100 ft. level, west of the cross-course, every preparation was being made to pump the water out of Christie's shaft, which is sunk to the 120 ft. level; and in about three weeks we expect to accomplish the object, when the ground will be examined to ascertain whether the eastern part of the lode has been discovered in either the 110 or 120; and if not, as we suppose, cross-cuts will be extended north to intersect it. With respect to the tinners and tin, I said we had opened a shaft on Wheal Fever lode, and examined the workings as far down as the water would allow us to go; and some good tin stuff was brought to surface, making a produce of 75 per cent. of black tin. We opened on the lode in several places; but as the water in the adit was doing down, we fully anticipated reaching the backs, about 50 fms. below the surface, in about a month from this time, when we should see whether we were justified in carrying on further operations in this part of the property or not. Tributaries, however, who had formerly worked in the ground, have indicated their willingness to resume working at 10s. in 11, leaving the other half a clear profit to the adventurers. This lode is about 200 fms. to the south of Garden's engine-shaft, and about 120 to the south-east of the new ground; the adit in which has been cleared not only 20, as stated in your Journal, but 220 fms. in length.

JOHN PARKES.
April 21.

TINCROFT MINE.

Sir,—In your last Journal there is a report of the proceedings of the last annual meeting of the Tincroft Company. On that occasion Mr. Tyrie animadverted on the management of the mine, and at the same time eulogised the manager! How to reconcile the two opposites is beyond my power: I leave that to Mr. Tyrie. I have no connection with the mine, but being in continual intercourse with mine agents of the first ability, I am in possession of their opinion respecting Tincroft management. In a recent conversation with one of them, he said that "he had been underground there several times, and he could truly say that a mine better laid out he had never seen, except that the shafts were not such as would be sunk if they had to be sunk now." But these shafts were there long before the present manager had anything to do with the mine; consequently any defect in them he is not to be blamed. As to the footways, I hear that they are admired by all who travel over them. In the high opinion expressed by Mr. Tyrie of Capt. Floyd's character I entirely concur, but utterly dissent from the allegation that the mine is badly managed. The expenditure by Mr. Tyrie of 100l. for the report of the gentleman whom he employed to inspect the mines is mere waste; for however desirous Mr. Tyrie may be to see that gentleman in the position of engineer, it is not probable that his supervision would be of any advantage to the company. Native talent has always been found best for Cornish mines. Cockneys can talk and boast a great deal, but their room is better than their company in mine management.—Truro, April 18.

A MINERAL SURVEYOR.

WEST WHEEL JANE AND KEA TREMAYNE.

Sir,—I read in your last Journal the reports of the meetings of shareholders in the West Wheel Jane and Kea Tremayne Mines. I have no other means of obtaining information concerning this property, in which I have an interest, except through the medium of your valuable Journal. I may, perhaps, be excused for expressing through the same medium the surprise I felt on looking at the financial statement; a more meagre affair I never saw. These companies, of course, have a secretary of some sort, and an office of some kind or other; but I find no charge for either. Whether their expenses are included in the mine costs, or in the sum advanced in part payment of the engine, I am really at a loss to understand; but in one or the other of these items it must be, if charged at all; and if got charged, then, I contend the balance is false. I will say nothing about the extraordinary statement put forth at a previous meeting in reference to the "anxious audience," further than that I never had the slightest confidence either in the experiment or the result; but believing the mines were valuable as tin mines, I kept to my shares. It is, however, with the accounts I have to deal; and I would suggest that an amended balance-sheet be forthwith sent to every shareholder.

A SUBSCRIBER.
Oxford, April 21.

MR. PERKES, AND THE KEA TREMAYNE MINE.

Sir,—Permit me, through your Journal, to reply to Mr. Jones, chairman of the Kea Tremayne Mining Company, who, at the meeting held on the 12th inst., took occasion to bring prominently before the shareholders an error on the part of myself, as manager at the Vulcan Wharf, in taking the weight of the mercury used in an experiment made for the company, in his and other gentlemen's presence. This matter, as explained to Mr. Jones, and he appeared satisfied; the weight was taken by a new weighing-machine, not by scales, and I misjudged the quantity, not 24 lbs., but exactly 28 lbs., this has been more than once explained to Mr. Jones, and, as I said before, to his apparent satisfaction; and it was, no doubt, the repetition of Mr. Jones's expression and discontent to Mr. Perkes, that led Mr. Perkes, after the explanations more than once shown, both by Mr. Perkes and myself, to say it was narrow-minded of Mr. Jones to reiterate his complaints. I much fear Mr. Jones is angered at not finding his anticipations realised of a much larger yield of gold; but he is cautioned by Mr. Perkes that he must not be disappointed at a small result, as the mineral brought was arsenical. I should not have intruded on your space, but, as I think Mr. Jones's remarks are calculated to misrepresent both the mine and myself, I trust you will grant this note insertion.

J. FISHER.
April 21.

WHEEL ZION.

Sir,—The Agents of this Mine beg to inform Mr. T. Gosse, in reply to his letter, in last week's Journal, that they did not omit doing their duty respecting the improvement of the mine, but that the information through the usual channels in London and Bath, and beg to assure Mr. Gosse that they have no private interest to serve, nor do they wish to show the least partiality to any party; therefore, should advise Mr. Gosse in future to bring himself acquainted with facts before holding them up in the *Mining Journal*, with threats of being discharged. Amidst all the discord made by Mr. Gosse, they intend to do their duty to the shareholders generally, as heretofore.—April 19.

WHEEL ZION.

Sir,—In your last Journal a letter appeared, signed T. Gosse, in reference to this mine. I am desired to solicit the favour of a space in your next issue for the insertion of a reply. If the announcement alluded to by Mr. Gosse has aroused his indignation, it had not the least astonishing effect on the London committee and shareholders. There had been no communication from the mine received at the office, announcing such an improvement as that which was mentioned, and as quoted by Mr. Gosse; neither had any paragraph been sent from this office, except the usual weekly report to the *Mining Journal*. Duplicates of every report from the mine, as sent to London, are invariably sent to the Bath members of the committee. There seems nothing extraordinary for Mr. Gosse to receive even daily applications for shares by telegraph from the London member of the committee he refers to (who is Mr. Peter Watson), that gentleman's special business, like his own, is that of a mining sharebroker. There is, however, a much stronger reason why a "bond of union" cannot exist between the London shareholders and the clique who were promoters of the mine at an exorbitant premium; and this clique comprises Mr. Gosse himself and his immediate friends. That reason is the extraordinary efforts now made to obtain a majority of shares, to secure for Mr. Gosse the secretaryship, and the management of the mine, and the fact that Mr. Gosse has organised a partnership, to provide funds to purchase a majority of shares, in order to bring about this end, one of whom is Mr. H. C. Vivian, who has contributed largely, with a view (as openly expressed at the last general meeting) of being reinstated as local promoter. Surely, former experience has given original shareholders a painful and costly lesson as to such management. Before Mr. Gosse again indulges in similar bursts of virtuous indignation, let him commune quietly with himself, and abandon selfish views; he would then first make enquiry as to whether the grievances complained of had any existence in fact. Why such letters as that of Mr. Gosse, when we learn from the questionable authority that "the mine is being worked entirely in accordance with the rules of good mining?" Let the Bath party abandon selfish purposes, and not make the interests of shareholders subservient to individual gain, or, as Mr. Gosse says, you will "force them to a resistance."

HENRY FRET.
St. Helen's-place, London, April 21.

WHEEL ZION.

Sir,—In reply to the insinuations of Mr. T. Gosse, in your Journal of the 15th inst., I beg to say that I have done business to the extent of about 200 or 300 shares through the medium of the telegraph (to and from Bath); and at the time of telegraphing to Mr. Gosse for the paltry number of 20 shares, at 24. 10s. per share, I knew of no improvement at the mine, and so far from offering at a price (as Mr. Gosse states) considerably below the marketable value, I heard from several brokers the same day that they had received orders from Mr. Gosse, offering to buy at 24s. the same day the same shares at 24s., and afterwards offered to buy at the same price. This was on the 10th inst., and on the same day I was told by a person from the neighbourhood, after I had telegraphed to Mr. Gosse, that the lode was worth 30l. per fm.; this, with other information, as I am frequently in the habit of doing, I communicated. From this you will see that the paragraph alluded to did not emanate from the office, or from any of the committee of management. This proves Mr. Gosse's insinuations unfounded. In reference to the individual motives of Mr. Gosse for urging a change of management, I am well aware that even the Bath shareholders have joined in favourable compliments to our secretary (Mr. Fret), and according to the reports of the managing agents who have lately examined Wheel Zion, we learn with pleasure that "the mine is now being worked entirely in conformity with the rules of good mining." Then, why such squabbling? Will Mr. Gosse ensure an ore lode, even if he is appointed by his own means as secretary?

PETER WATSON.
3, Old Broad-street, April 21.

MINING AROUND TAVISTOCK.

Sir,—Agreeably to request, I have visited the different mines, and forward you a few particulars. I first inspected the Stridgate Consols, and find, from its appearance, that it had not been at all over-rated; it is the best young mine at the depth I ever saw; you really cannot say too much for it. I then visited its neighbour, North Wheel Robert, where they were raising some very fine ore, and its machinery altogether to be in perfect order, the dressing-floors laid out to the best advantage, and the shafts in a very promising manner. From thence I crossed Easter Down, and saw the South Devon Burra Burra. I must confess I was surprised to see the large lode they have there discovered in costaining. I do think it is the largest and strongest I ever saw so near the surface, it is composed of capel, prlan, and peach, with strong spots of yellow ore, and from the beautiful stata it is in cannot fall in depth of making a large deposit of ore. I find it is about one mile from Stridgate and North Wheel Robert, with the Crebor lodes at the west, altogether this is a very promising sett, and worthy of a good outlay. I next crossed Whitechurch Down, about half a mile south of South Devon Burra Burra, to the Devon Burra Burra, and I was much surprised to see the Devon Burra Burra, in which the mine is laid out, and the working of the engine. I wish them "good speed." In visiting these mines, and making geological surveys as I passed, I have no hesitation in saying that east and south-east of Tavistock will yet be as great a mining district as any part of Cornwall or Devon, and congratulate those who are fortunate enough to be holders in that neighbourhood.—J. P.: April 19.

Meetings of Mining Companies.

QUARTZ ROCK MARIPOSA GOLD MINING COMPANY.

The annual general meeting of shareholders (postponed from the 31st March) was held at the London Tavern, Bishopsgate, on the 13th inst.

Mr. Alderman CARTER in the chair.

The CHAIRMAN stated that he regretted he was obliged to be in the chair that day, owing to the indisposition of Lord Erskine, who wished to have been with them, but was precluded from so doing by the advice of his medical attendant. A letter was then read from Lord Erskine, expressing that nobleman's regret in not being able to participate in the meeting.

The SECRETARY (Mr. Waddell) then read the following report of the directors:—
The directors having postponed the day of meeting from the period fixed, in order that they might be enabled to lay before the shareholders actual results, and a minute report of the position and prospects of the undertaking, which their superintendent engaged to furnish, regret to state that they are precluded from submitting such important information to this meeting, inasmuch as the mail from the mines up to the 1st March has not come to hand. Your directors, under such circumstances, being called upon to frame their report, are not unmindful that the entire correspondence from the company's agents in California has been at all times open to the inspection of any shareholders, and consequently, that the progress made in the carrying out of the objects of the company is familiar to many of those now assembled, and they, therefore, have only selected such leading facts as are of special import and interest, to bring before the shareholders present on this occasion.

At the general meeting held in March, 1853, it was reported that a conditional contract had been entered into, securing certain gold mines at Maxwell's Creek, Mariposa county, California, for the operations of the company. It is with satisfaction the directors now announce that the examination and the trials made of the ore from the veins having fully borne out the representations and calculations upon which the treaty was based, and the title to the property being approved, the agent of the company confirmed the agreement, and a contract, dated 11th March, 1853, was entered into, whereby Messrs. Anthony and Lacharme, in consideration of a covenant on the part of the company to furnish the requisite capital and machinery to fully develop and work the mines, and of an engagement with them as superintendents and managers of the works of the company, at a salary of \$800 per annum each, together with an allowance of 2½ per cent. to each on the net annual profits of the company, assigned and made over to this company all their interest as lessees and proprietors of the following gold quartz veins, viz., Mary Harrison, Virginia, and Mariquita, on the same terms as they were held by themselves, with the option of extension of term or purchase. The particulars of the leases are as follows:—

MARY HARRISON vein, situated one and a half mile south of Coulterville, of the extent of 750 yards, is held under an assignment of lease to the company for an unexpired term of 11 years from the 1st April, 1853, at a royalty of 88 per cent, with a condition to raise at least 150 tons monthly, commencing from 1st July, 1853.
VIRGINIA, situated one and a half mile south-east from the Mary Harrison, extends 112½ ft. is held on an original lease to the company for a period of 12 years from the 10th March, 1853, at a royalty of 85 per cent, with an obligation to raise 250 tons per month, commencing from 1st July, 1853.

MARIQUITA, one mile south-east of the Mary Harrison, extends 500 yards; is held for a term of 11 years from 1st April, 1853, at a royalty of 85 per cent, without any stipulation as to raising any given quantity of quartz, or any period when operations are to commence thereon.

Also a lease of all the trees and timber on the property, upon payment of 81 per cent of wood cut by the company. Possession of the property was taken by the agent of the company on the 1st of April, 1853, when the operations were commenced forthwith. By a Deed of Conveyance, dated 20th April, 1853, the fee simple of a piece of land, situated in a plain midway between the mines, was conveyed to the company as a site for the erection of the necessary buildings, machinery, &c. The buildings and works completed on this freehold plot of land are of a plain but most substantial kind, chiefly of stone, and consist—1. Of a two-story house, for the accommodation of the superintendents, with the grounds fenced in.—2. A house of large dimensions, for the lodgings of officers and employees of the company; also a boarding establishment and kitchen: in the rear are the stables.—3. Six cottages, 16½ ft. by 12 ft. for the miners and labourers, occupied by eight men each.—4. A very substantial stone building, 66 ft. by 60, covering the steam-engine and boilers, crushers, amalgamators and washers, kiln, water tank, and room for the engineer; the upper story being for an assay office, and stores for provisions, tools, &c.—5. The quartz depot, 64 ft. by 40 ft., with a stone wall running along the embankment of the road to the quartz veins.—6. The fire-wood yard, close by the furnace doors.—7. A fountain for supplying the boilers and washing machinery with the water.—8. The Chinese camp and tents. All the stone used in these buildings was quarried and dressed, the timber felled, hauled, and worked by the company's own workmen. The machinery erected consists of a steam-engine and boilers, equal to 75-horse power, with all necessary reduction, amalgamating, and washing machinery, according to a system patented in America by the company's engineer, L. Lacharme, evidence having been furnished from the working of about 50 tons of quartz on that system, that an average of 3 ozs. of gold to the ton was obtained, although only a small engine of 7-horse power and two small amalgamators were used. The company's superintendents estimate that with the powerful machinery now set up they will be enabled to crush, crush, and amalgamate 300 tons of ore per day. Roads have also been cut, levelled, and formed, and bridges built, leading to the different veins, over an extent of about five miles. The mines are situated at a distance of 25 miles from Mariposa, 30 from Senora, and 70 from Stockton, 30 miles of which are in the mountain district, 40 across the plains, and San Francisco is reached from thence by steamers, the whole journey, in the dry season, occupying from 30 to 40 hours.

The works executed at the mines are as follows:—At the Mary Harrison, where the vein crops out on the surface, it is from 3 to 4 ft. wide. An adit, of 6 ft. in height and 4 ft. in width, has been driven at the foot of the mountain, and has been worked in hillside and level, to the length of 300 ft.; nearly at 650 ft. from its mouth it will reach the vein and serve both for draining the works and extracting the ore. A second adit has been driven on the south-east side of the mountain, just above the creek. On the top of the vein, a shaft has been sunk, and at the depth of 50 feet four galleries have been opened, running from 10 to 40 ft. on each side; in the quartz taken from that vein the gold was of a very fine quality, and generally diffused throughout. Another shaft, called the Dahlia, has been sunk to a considerable depth, and an inclined plane formed, by which rich ore has been extracted. At the depth of 40 ft. a quantity of pyrites is discerned, and some visible signs in the gangstone, and the greenstone extends, which the superintendents think they are justified in believing it to do, it will prove an inexhaustible source of riches. At the Virginia the vein crops out 4 to 10 ft. thick, and rises in two massive peaks, 56 and 62 ft. high respectively. Two adits are opened on this mine; one, called the Marie, has been driven to the extent of 180 ft. and upwards of 100 ft. in the vein, but not yet through. The Lola Montes adit has been driven nearly 100 ft.; from both these adits much ore of a very promising character has been obtained.—Mariquita: The works thereon have been merely sufficient to comply with the requirements of the law and keep possession. It being important to have a large stock of quartz on hand before the rainy season commenced, it was considered desirable to obtain the Louisa Mine (which adjoins the Mary Harrison) as the vein could be reached by a short adit, and ore easily extracted in large quantities. This mine was, therefore, taken possession of on the 15th July last, under a temporary lease till Christmas, 1853, with liberty to raise any quantity of quartz up to 50 tons per day, at a small royalty. A tunnel has been opened, and the vein reached and cut into 4 ft., but not yet through. A shaft has also been sunk directly upon the vein, and a large quantity of rich ore has been raised therefrom. Out of these mines above 2000 tons of good quartz has been raised, and a large portion of which has been brought into the quartz-yard, and the remainder being daily carted from the veins, and a considerable quantity has been calcined, ready for crushing. It is a satisfaction to the directors to be able to announce, on the authority of their superintendents, that the ore taken from their lower levels, at the surface exceeding 200 feet, has proved to be of a richer quality than that at the surface, and the veins also increase in width as they descend. The company's agent states that in a blast made in his presence he could hardly find a piece of quartz which did not show gold visible to the eye. The directors, in the prospect of immediately receiving a large quantity of ore, and in view of the fact that the mine is upon the optimum formed and expressed of the probable yield of gold, but they think it right to state that the assays made very much exceed in richness the estimates upon which the company's calculations were based.

The hands employed in the execution of these extensive works have varied from 60 to upwards of 100 miners and labourers, exclusive of the superintendents and officers, comprising English, Americans, Mexicans, French, Germans, and Chinese, at an average cost of about \$2½ per day, with rations; and the superintendents have expressed themselves satisfied with the general conduct of their workmen.

It was found requisite to obtain an additional quantity of machinery, tools, &c., suited to the requirements of the country, which were obtained from the foundries of San Francisco.
Subjoined is the cash account, made up to the 15th February, and duly audited, which shows the total receipts to have been \$6,854. 10s. 4d., and the expenditure \$4,599. 3s. 10d.; leaving at that date a balance at the bankers and in hand amounting to \$2,255. 6s. 6d. It is, however, necessary to state that since that period, in order to pay off the additional machinery required at the mines, the wages, royalties, necessary stores, and provisions before the rainy season, and other expenses, the directors find it necessary to draw the sum of \$366. 13s. 4d., thereby absorbing the balance remaining on the 15th February, and requiring a further sum of \$511. 6s. 10d., which amount has been advanced for the company, by Mr. Alderman Kelly and Mr. Alderman Carter. Your directors, being unwilling to dispose of any of the 16,065 shares still unissued, but they now propose, with the approbation of the shareholders, to allot the same, and to give the present shareholders the option of taking such unissued shares at par, *pro rata*, which will give 38 shares additional of the company's stock for every 100 so held, and in proportion for a larger or smaller number.

The shareholders will see, from the recapitulation which has been given of the works already performed, that this is a great mining enterprise, and that the plant and establishment are on a very extensive scale. The directors feel it is a matter of congratulation that, through the energy and perseverance of the agents of the company, in the short space of only ten months from the period of taking possession of the property, and at a comparatively small expense, the mines have been fully opened and proved, the roads and bridges completed, the necessary buildings erected, and the whole reduction and amalgamating machinery, which, with the heavy engines and boilers, had to be transported across a most difficult and mountainous country, and over almost impassable roads, for a distance of 70 miles, have been set up and put into complete working operation. And notwithstanding the superintendents have been unable, in consequence of many difficulties and disappointments they had to contend with (which are almost impossible for shareholders in this country to conceive, and which it is unnecessary here to recount), to send home actual results, according to promise; yet the directors have the satisfaction to state they are aware that in the middle of February the whole machinery was in good working order, and that the crushing and amalgamating had commenced in earnest; and they had the greatest confidence in being able to place before the shareholders in the course of a short time the material evidence arising out of the actual results, which will establish the fact that quartz mining, carried on with powerful machinery, and with every practicable economy consistent with the proper development of the mines, as in the present instance, will yield very ample returns for the capital invested.

The directors who retire by rotation are, Mr. Alderman Farcomb and Thomas Houghton Harding, Esq., in whose stead Lieut.-Col. Grant and Robert Gillman, Esq., offer themselves for election.

The directors, following up the resolution expressed in their first report, again decline any remuneration for their services during the two past years, and the mine is yielding returns, when they doubt not their just claims will receive fair consideration. In the meantime, they propose that the auditors, Messrs. Pocock and Carr, be paid the minimum allowance of ten guineas each for their services, and for which a vote was taken.

The balance-sheet was then read, detailing the items of expenditure from the commencement of the adventure until the 15th Feb. 1854, which showed—Shares paid up, \$3,599.3; interest on investments, \$391. 10s. 4d.—\$3,990. 10s. 4d.—Amount paid Col. Frémont's agent for deposit, in terms of lease, 10000; preliminary expenses, advertising, &c., 1060. 17s.; counting-house furniture, 22. 5s.; salaries in England, 1832, 1833, 1834, 1835, 1836, 1837, 1838, 1839, 1840, 1841, 1842, 1843, 1844, 1845, 1846, 1847, 1848, 1849, 1850, 1851, 1852, 1853, 1854, 1855, 1856, 1857, 1858, 1859, 1860, 1861, 1862, 1863, 1864, 1865, 1866, 1867, 1868, 1869, 1870, 1871, 1872, 1873, 1874, 1875, 1876, 1877, 1878, 1879, 1880, 1881, 1882, 1883, 1884, 1885, 1886, 1887, 1888, 1889, 1890, 1891, 1892, 1893, 1894, 1895, 1896, 1897, 1898, 1899, 1900, 1901, 1902, 1903, 1904, 1905, 1906, 1907, 1908, 1909, 1910, 1911, 1912, 1913, 1914, 1915, 1916, 1917, 1918, 1919, 1920, 1921, 1922, 1923, 1924, 1925, 1926, 1927, 1928, 1929, 1930, 1931, 1932, 1933, 1934, 1935, 1936, 1937, 1938, 1939, 1940, 1941, 1942, 1943, 1944, 1945, 1946, 1947, 1948, 1949, 1950, 1951, 1952, 1953, 1954, 1955, 1956, 1957, 1958, 1959, 1960, 1961, 1962, 1963, 1964, 1965, 1966, 1967, 1968, 1969, 1970, 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Mining Correspondence.

BRITISH MINES.

ALFRED CONSOLS.—The lode in the 120 fms. level, east of Field's engine-shaft, has a better appearance since last reported on, and the water flowing more; by this lode the water will be drained off No. 1 winze, sinking under the 110—the lode in this winze is worth 100 lbs. per ton. The 110 is communicated with Fryer's shaft; the south lode in the same level is worth 150 lbs. per ton. No change in any other of our workings since the last report. The tribute department looks well. The new engine will be set to work next week.—**MATTHEW WHITE:** April 17.

ANGARRACK CONSOLS.—The operations up to this time have been confined to two points, viz., in the north-west and south-east. In the former a shaft has been sunk, and a level driven east on Mellinoweth Lode about 70 fms. It is from 1 to 4 ft. wide, and is composed of quartz, capel, iron pyrites, blende, and spots of yellow copper ore. There is another lode about 20 fms. north of the Mellinoweth lode; it is 2 ft. wide, and underlying north about 5 ft. in the fm.; it is composed of quartz, mundle, and spots of yellow copper ore. In driving the adit level south, several lodes were intersected of a very promising character, having good bunches of copper, lead and silver. These lodes are marked 4, 5, 6, and 7, on the plan; and to the south of them is another large lode called the Triangle lode; it has very encouraging prospects, underlying north about 2½ ft. in a fm. This lode at the depth of about 40 fms. will run through the whole length of the Angarrack Consols Mines. In the eastern part of the sets called Cold Harbour, an adit level is being driven north to intersect the Mellinoweth lode, which it is expected to reach in about 10 fms. from the present end. Cold Harbour shaft is sunk to the adit level, which at this point is 10 fms. from the surface. An lode was intersected in this shaft, underlying south from 3 to 4 ft. in a fathom. A level has been driven east, on the course of this lode about 40 fms., and has passed several bunches of good tinastuff, which also produces gold. There are several bunches or lodgments of lead, silver, iron-pyrites, and blende, seen in driving on this lode at the level, and presenting very encouraging prospects for a rich lode in depth. It is expected that this lode at a short distance from the present end will form a junction with the great cauter lode; at which point I have not the least doubt a rich lode of ore will be found, and at deeper levels will yield great profits. The great cauter, or Alfred Consols lode, is laid open in the railway cutting at the eastern part of the mine, where it presents a splendid appearance for producing large quantities of mineral wealth. In the adit level, north of Cold Harbour shaft, two other lodes are intersected, one of which called the silver lode, is from 6 to 14 ft. wide, composed of soft white pyran flookan, iron pyrites, and silver, underlying north 5 ft. in the fathom. I should recommend a winze to be sunk on it immediately. The water seems to be very little, and from the nature of the lode I think it will soon prove to be very valuable. There are many other objects in this mine, which if properly explored, would be remunerative, and likely to yield good profit. I should think it would be rather premature to select the spot for the engine, or to commence a new shaft before the great cauter and Mellinoweth lodes are intersected in the adit level. Taking a review of the locality and situation of the mine, the great number of lodes and cauter lodes, with so many intersections, and traversed by so many cross-cauter and flookans, it is very rare to find a mine so situated, or with such indications and prospects of certain success. It is my firm opinion that it will prove to be a property of great value.—**W. MARTIN:** April 19.

ARUNDELL COPPER (NEAR ASHBURTON).—The ground in Victoria engine-shaft is favourable for sinking, composed of a light killas. In the 25 fms. level, the cross-cut, driving north to the lode, is now gone through the branch with native copper; the ground looks very favourable for the lode. The ground in the adit cross-cut from Watson's shaft, also, looks very favourable for the lode; we have floors of the same nature as we sent in the box of native copper, underlying north towards the lode.—**W. THOMAS:** April 17.

AUGUSTA CONSOLS.—The ground or stratum at the engine-shaft is changing to a light blue killas, with branches of spar, containing good spots of yellow ore, which is about 25 fms. level. I hope there will be no time lost in reaching this level, and cross-cut to all the lodes. When I think Augustus Consols will certainly be a higher stand in the market. There is no alteration to notice in the 15 fms. level east since last report.—**A. BEAY:**

BALLESWIDEN UNITED.—We have sunk 2 fms. in the engine-shaft; this will be all we shall sink in this shaft for some time. We shall now work down this ground going to the flat-rod shaft with all speed, and with as many men as we can set to work. In the flat-rod shaft we have found a level going east of the shaft, and also an arch of whole ground, which is producing good stones of tin; this ground we shall now work while we have the advantage to do so, knowing it will more than pay; and our shaft will be down in time for the stopes to go under the 20 fms. level with all speed. We are clearing up the River shaft, which is now down 14 fms. from the surface; here we have sunk water on tribute, and we shall clear up to the 20 fms. level as fast as possible, where we expect to find more ground for tribute. We are also clearing up Daw's shaft with the whim; this shaft is down 16 fms. from the surface; here we have four men working on tribute over the adit level. We shall take up this shaft to the 20 fms. level, and other places we have found; we expect to find tribute ground here on the flat lode. Our prospects here are very great, and the season of the year is in our favour for clearing up this mine, which there shall be no time lost in doing.—**H. MICHELL:** April 18.

BAT HOLES.—The Cornish lode in the 60, driving south, is 1½ ft. wide; the spar is of a promising appearance. We anticipate this end to be near a branch that is in that direction, it having diverged from the California lode, when an improvement may be reasonably expected. The wood lode in the 45, driving south, is 6 ft. wide—driving, but showing a change for the better both the lode and the character of the stratum. The tribute departments, both on this and the California lode, are without any material alteration.—**W. BARRATT:** April 19.

BEDFORD UNITED.—The lode in the 115 fms. level east is 3 ft. wide, and yielding 4 tons of ore per fathom. Paul's stopes in this level are worth 3 tons, and Jeffery's ditto 5 tons, of ore per fathom. The 103 fms. level is looking very promising, and the lode yielding about 3½ tons of ore per fathom. Jackson's stopes in this level are worth 6 tons of ore per fathom. There is no alteration in any other part of the mine.—**J. PHILLIPS:** April 19.

BIRCH AILER.—The end in the 40 fms. level south at present is not quite so rich as it was, although a very kindly one indeed, producing good saving work; I am of opinion that it will shortly make again—a more regular and well-defined lode cannot be seen. In driving this level lately we have, according to appearances, opened a good piece of ground. The winze below the 30 fms. level south is looking well; there is a present end of the lode, yielding from 10 to 15 cwt. of lead per fathom, and I think the lode will be a good one. The pitch in the back of this level is looking very well, and the tributaries are earning good wages. The south end in this level is looking, I think, better than I have seen it for some time; there is in the present end a pretty branch of a clear white barytes, sprigged with lead and mundle, and appears to me to be the back of a good lode. Pye's shaft, sinking below this level, is going down in good ground, which will come in with the western or principal part of the lode in a few fathoms further sinking, when I am strongly of opinion a good piece of ground will be seen. The prospects of the mine are looking capital—in fact, I fancy that almost every day, the improvement every day. The dressing plant are clearing as fast as they can, but they are not sufficiently numerous to keep pace with the underground men, whom we are increasing as fast as we can make room for them on the floors. The engine, and all the machinery connected with the working of this mine, are doing very well, but we have not water enough to draw all the stuff and clean the lead, and I am obliged to erect a horse-whim on Pye's shaft.—**Geo. R. DODGERS:** April 15.

BODMIN UNITED.—The 90, east of Truscott's, has been driven about 20 fathoms under the south wall, to drain it; at the end of this driving a cross-cut is being driven through the lode; it has now been driven about 3 feet; the south part of the lode for about 3 feet through spar, spotted with ore; we then reached a leading part of the lode, about 2 feet wide, composed of mostly spar and yellow ore, producing about 4 tons of ore per fathom. We have opened about 3 ft. of ore, and it appears to be improving in both ends. From the appearance of the lode east and west of cross-cut, and from indications in driving the level, I have no doubt that the level has been driven many fathoms by the side of a good lode. We have reason to suppose that another, if not the leading part of the lode, is still standing to the north. Nearly all the water is issuing from that direction. We have now proved that the ore is holding down, and that the character of the lode is changed from flookan and capel to a congenial spar matrix. I have, therefore, little or no doubt that we shall continue to have a productive and lasting mine. The 90 west has now been driven about 9 feet on the south part of the lode; good stones of ore are being broken there. In winze sinking east of Truscott's, in the bottom of the 50, there is still a good lode. The 90 east will have to be driven 10 fms. further east to reach this still of ore. The 80 west is producing good stones of ore occasionally, improving as we drive. All our other operations are going on as usual. We shall sample on Monday next two parcels of ore, computed at 60 and 36 tons.—**R. RICH:** April 20.

BOLENOWE.—The engine-shaft is down about 7 fms. below the 40 fathom level—ground rather hard for sinking. The lode in the 40 east is 3 ft. wide, composed of iron, pryan, and spar; in the same level west the lode is disordered by a cross-course. In the 20 fms. level west the lode is 3 ft. wide, kindly, and letting out more water than usual.—**W. ROBERTS:** April 15.

BORINGDON CONSOLS.—In the adit level, east of Annie's shaft, the lode is about 2 ft. wide, 1½ ft. of which is good saving work. The 12 fms. level east is much the same, but the lode is a little more promising. In the 24 fms. level west the lode is from 2 to 3 ft. wide, one part being very good, and the other part of a poorer sort; the stopes in this level are much the same as last reported on. Going east there are no alterations worth noting.—**W. GUDDEN:** April 20.

BOSORN.—The lode in the winze in the bottom of the 30 fathom level, east of Halket's shaft, on the Guide, is about 16 inches wide, yielding tin. The lode in the stopes in the back of the 20 fathom level, east of Halket's shaft, on the Guide, is 1 ft. wide, saving work for tin. The lode in the stopes in the back of the 30 fathom level, west of Halket's shaft, on Widdon lode, is 6 in. wide, producing good stones of tin. The lode in the tribute pitch east of Halket's shaft, on Widdon lode, is 9 inches wide, good for tin. The lode in the tribute pitch in the back of the 30 fathom level, west of engine-shaft, on the spar lode, is 1 ft. wide, saving for tin. We have not cut any lode in the Well level; the ground continues favourable for driving.—**R. GOLDSWORTHY:** April 21.

BWLCH CONSOLS.—I have just returned from visiting this mine, and am glad to report that there has been a very valuable discovery made in that part of the property called Pwllrhysall. There is a course of ore in the winze sinking under the 27 fms. level, 2 ft. wide, of silver-lead ore, nearly solid, and worth fully 600 lbs. per fm. In the 40, driving west towards this ore, the end is in a course of ore, worth 300 lbs. per fm.; the 40 end is also in a course of ore, worth 300 lbs. per fm.; and the 35 end is in a good course of ore, 2 ft. wide; but the shaft has to be sunk 18 fms. to communicate to this, which is driven westward from a day level, or adit, from the side of the hill; altogether I have seldom seen a richer mine; and in a very short time the yield which from the levels alone is more than sufficient to pay the cost, will be considerably augmented, and give large profits. There is also ample machinery; the field of machinery attached to the mine having cost the proprietors upwards of 10,000l.; the wharfing which is in the most effective state for pumping, drawing, crushing, and washing the ore. It is gratifying to notice that the shareholders, who for a long time have persevered through a period of a poorer sort, have at length reached such ground as will amply reward them for their patience and outlay.—**MATTHEW FRANCIS:** April 21.

CARADON WOOD.—The lode in the north end and eastern lode is split; but we shall pursue the western one, being most in the run of the lode. We are expecting to hoist the rise to the 30 fms. level in a day or two, then we shall at once resume driving the south end. We are obliged to stop eastward, on account of the water, which prevents us from sinking to the former ground.—**J. HOLMAN:** April 18.

CALLINGTON.—Kelly Bray Lode: The lode in the 80 fathom level east is 4½ ft. wide, composed of fluor-spar, mundle, blende, and yellow copper ore, yielding full 3 tons of the latter per fm., worth 70 lbs. per ton. The winze in the bottom of the 70 fms. level is sunk 10 fms. 1 ft. below the 70, which point is as low as the bottom of the 80 fms. level, so that there are about 4½ fms. of unexplored ground between the 80 and east and the winze; we have put the winze men to drive west against the end to effect a speedy communication. The lode in the 70 fms. level east is small, and unproductive at present.—**Least Lode:** The lode in the 40 fms. level, south of count-house shaft, is 9 in. wide, composed of soft spar and lead ore, saving work. The lode in the 20 fms. level, south of incline-shaft, is 8 in. wide, composed of capel and spar, unproductive at present; the lode in the north end in the 30 fms. level is 8 in. wide, composed of soft spar and lead ore, laying open moderate tribute ground. The lode in the 10 fms. level, south of incline-shaft, is 3 in. wide, composed of spar, mundle, and lead ore, good saving work. The tribute departments, both on lead and copper, are much as usual.—**T. WOOLLOCK & S. JAMES:** April 17.

CALSTOCK UNITED.—The lode in the Varnish's shaft is large, with a leader on the south wall producing small portions of ore. We expect to sink to the 40 fms. level by the next setting-day, and wait your orders about the pitwork named in a former communication. The pitches working produce sufficient mundle for the eight kilns now at work. We have cut some branches in Caroline's 32 north, letting down the water from the tin lode; this cross-cut is progressing favourably. The water is in fork in the two engine-shafts. The machinery is in good working order. We will clear up as much tin as possible against the next pay, and will thank you for orders as to where your tin shall be sold.—**J. KENNICK & W. COOK:**

CLARA.—The new engine-shaft, which is carried down from the surface 10 fms. long and 6 ft. wide, capable of taking any pitwork that may be required for the further development of the mine, also for a footway and whim-shaft, is now down 21 fms. 2 ft.; and the men commenced driving a cross-cut north to intersect the lode; agreeable to the underlay, which we have seen in the old workings, it will be about 11 fms. This cross-cut will take the lode about 8 ft. deeper than any place we have hitherto seen in the old bottom, which will give us a back in that height, and, in all probability, to a great extent. The six men who are driving this cross-cut have taken it for the month, at 60 lbs. per fm. I hope this will be accomplished in about two months from this time, when, from the appearance of the lode in the old bottoms, as far as we have seen, good returns of ore might be expected shortly after, and brought into the market. The little section which I have sent you corresponds with the old workings, agreeable to what we have seen from the best authorities. You will also see from the section that our new engine-shaft will take the lode at a 45 fms. level, agreeable to its regular underlay. We are now repairing our water-wheel, and taking up all the pitwork, which we fixed to drain the water from the old mine, and removing the same to the new engine-shaft, which will be quite sufficient to see the lode at that depth; and from the nearest estimate we can form, to cut the lode, and drain the old mine dry, setting the machinery in order, and other surface labour, will be about 200l.—**S. TREVETHAN:** April 20.

CLIJAH AND WENTWORTH.—The 20 east, on Julia lode, will yield about 1½ ton of ore per fm. The stopes in the back of the 20 fms. level will yield 1 ton of ore per fm., cost of stopping 55s. per fm. The stopes working in the bottom of the 20 fms. level, east of cross-cut, will turn out from 2½ to 3 tons of ore per fm., cost of stopping 60s. per fm. The 30 fms. level east is very much improved since my last report; the end at present will yield 1½ ton of ore per fm.; in the 30 fms. level west there is no alteration since my last report. The 40 fms. level east is much the same, producing 1½ ton of ore per fm. Walters's shaft is now down 27 fms. from surface; the lode will turn out 2 tons of ore per fm. Our sampling will be in the course of a few days, when I hope we shall sample about 60 tons.—**J. CUDLIP:** April 15.

CLIVE.—In the deep adit level the lode is 18 in. wide, unproductive; in the winze in the bottom of this level the water is down 7 fms. 5 ft.; the greatest part of the lode for this depth is taken away. In the small arches, or ground left standing, the lode is 2 ft. wide, 6 in. of which is rich work; we shall rid up this winze with all possible despatch, in order to ascertain the quality of the lode in depth. At Summer's shaft we have repaired the footway, and are putting the shaft in repair for drawing from the 20 fms. level, and intend to begin stopping the back to-morrow.—**As soon as I can get men I shall commence driving the 30 east.**—**E. ROOSES:** April 18.

CLOWANCE WOOD.—We are driving the adit west of Slater's shaft, on Slater's lode; the lode is a fine piece of copper ore, mundle, blende, and yellow copper ore. We are sinking Richards's shaft below the adit or Slater's lode; the lode is 1½ foot wide, producing good stones of rich copper ore. We sunk in the past week 5 ft., and are getting on with the whim, and hope to have it at work in two days.—**J. DELBRIDGE & E. CROFTON:** April 17.

COMBARTIN CONSOLS.—After I had posted last report, we cut a stream of water in the bottom of the shaft, and we have been in consequence obliged to suspend all operations at the shaft. We have urged the founders to get our pitwork ready at once, which, when brought on the mine, will quickly be put in order; after which the engine, with its appendages, will soon be in operation. Surface operations are progressing satisfactorily.—**JOHN TREWEK:** April 19.

CWM DARREN.—Last Saturday was our setting and pay-day. The engine-shaft below the 30 was set to six men, 2 fms., or the month, at 12½ per fathom—not taken. The 30, west of engine-shaft, to four men, 3 fms., or the month, at 60 per fathom. Taken this morning, in appearance, just as last reported. The winze in the bottom of the 30 fms. level, east of engine-shaft, to six men, 3 fms., or the month, at 70 lbs. per fm., worth for copper 16 to 18½ per fm.; the stopes in the back of the 20, west of Jane's rise, to four men, 6 fms., or the month, at 37 per fm., worth from 18½ to 20½ per fm. The stopes in the bottom of the 10, east of Jane's rise, for four men, 6 fms., or the month, at 27½ per fathom—not taken, worth from 16½ to 18½ per fm. We have commenced clearing out some old workings that have not been worked for a great number of years, about 150 fms. east of the engine-shaft, and by the appearance of the stuff drawn to surface, and what we can see of the lode, there is every reason to believe that we have cleared out some of the best of the mine, and that we will produce very productive. We have found some good stones of lead ore in clearing up one of the old shafts, some of them weighing as much as 1 cwt., and more than half ore.—**R. SANDERS:** April 17.

DEVON BULLER GREAT CONSOLS.—I have set Emma's engine-shaft to sink to the 20 fms. level by 12 men, at 19½ per fm. I have been watching the sinking of the water in the shaft. I am also making every preparation to let tribute pitches, as opportunities may offer. I let one pitch to a pair of men on Monday, at 8s. in 14.—**M. STEPHENS:** April 19.

DHURDLE.—The lode in the end of the winze at the adit is 4 feet wide, containing a branch of ore 8 in. wide, and the ground very favourable for driving. In the cross-cut north, at the deep adit level, we have intersected several branches of quartz, containing mundle and spots of yellow ore; these branches I consider are droppers from the lode. Judging from the nature of the ground, and the oxides of gossan and water issuing from the end, are strong evidences that we are near the lode. In extending on the south cauter, we have intersected some branches of gossan and quartz, of a highly mineralized character, and producing rich stones of ore. I expect shortly to intersect one of the main east and west lodes, where I hope to meet with another good bunch of ore. In the western end of the new winze the lode in the stopes is 10 ft. in breadth, producing branches of ore from 10 to 18 in. wide. In the bottom of the winze the lode is 8 ft. wide, containing ore throughout of a permanent character; as soon as the shaft is completed, we shall commence sinking under the deep adit with all dispatch. I expect to have the new stamps put to work in a few days.—**C. THOMAS:** April 17.

DUNSLY WHEAL PIOTONIX.—The lode in the eastern adit is still producing good work for tin; the stopes in the back of this level still produce good work, as also the shallow stopes both east and west. The wheel-pit is completed, and we shall lose no time in getting the wheel erected and the stamps attached.—**J. SPARGO:**

EAST CROWDALE.—The engine-shaft is sunk to the 68 fathom level, at which point a cross-cut has been driven north to the 15 fms., and east on the course of the lode from 4 to 5 fms.; the lode below the last 3 feet driving is small and unproductive, but in the present end it presents a very promising appearance, being larger, and spotted with ore, with water issuing strongly from the breast. It is my opinion that the lode at the point will continue to improve until we have a bunch of ore; the lode is being driven by six men. The 68 fms. level west, on south lode, is driven 4 fms. level small and unproductive; this level is to within about 25 fms. of a good stone of ore gone down in the level above; six men are employed in driving this level. The lode in the 58 fms. level is at present small, composed of white iron, and spots of copper and lead; driving by four men. A winze is in course of sinking in the bottom of this level, down 8½ fms., leaving from 2 to 3 fms. level to communicate with the 68 fms. level, on the north lode. In the 58 fms. level east, on south lode, the lode is 2 ft. wide; it is a strong lode, composed of mundle, peach, quartz, and spots of ore; driving by two men. Two pitches are in course of working in the back of the 58 fms. level, on the north lode; by two men in each, yielding fair work in their respective tributaries. I could not see the bottom of the sink in the bottom of the 58 fms. level, on the south lode; but, judging from the stuff I saw, it looks very encouraging. I would recommend this winze being continued sinking, the lode at this point being much more productive in going down than it was in the backs. In conclusion, I consider that your prospects in this mine are good, and I have no doubt, when further developed, will lead to important results, particularly in sinking deeper, which I would recommend being done on the course of the north lode, should it prove to be a speculation, of which I think there is little doubt, when the lode in the 68 fathom level is further laid open.—**April 15.**

EAST WHEAL GEORGE.—I have but little to add to my report of last week, as no alteration worthy of notice has taken place in the bottom levels during the present week. In costaining we have intersected several branches. The lode appears to be disordered in the ore parts west of the cross-course by coming in contact with a hard bar of ironstone. Previous to sinking the shaft, a plat must be cut in the 44 fms. level; when this is done I expect the shaft will be pretty well drained by the extension of the eastern levels.—**April 15.**

EAST WHEAL RUSSELL.—Hitchins's shaft is of just the same character as before reported, the lode being composed of strong gossan, white pryan, capels, with coats of copper ore, also carrying a beautiful white flookan on the north wall. We are continuing stopping the bottom of the 43, towards the winze. We have not yet made a communication from the adit to Homersham's shaft, as we cannot get any axes to draw the water out of the shaft. The farmers are still very busy with their tilling.—**W. METHERELL:** April 20.

EAST WHITE GRIT.—There is no alteration since my last in the 40 fathom level south. In the Shellet level we have reached the base of the lode, with about 18 ft. wide, with some small shoots of white ore running through, but we have made no trial upon it, as we are close upon another lode, towards which the men are driving with all possible speed.—**R. P. EDLSTEN:** April 19.

EXMOOR WHEAL ELIZA.—Owing to dry weather there is very little water to work our engine, consequently we have enough to do to keep the 36 fms. level in fork. Several of our men are gone away, and only those two places in the 36 and 24 fathom levels, recommended for trial at the last meeting, are now being worked. In the former the ground is moderately easy; we have the flookan regular; six men are employed here. In the latter Moore's branch is 9 in. wide, composed of gossan and mundle—ground hard; this is also driven by six men.—**W. DUNSTAN:** April 19.

GORN LEAD.—In going forward with the adit end the lode continues in an unsettled state. We have before us a long tract of virgin ground, which we are going to try by costaining, as it is far cheaper than extending the adit end, and will make as fair a trial of the lode as driving the end. I hope in so doing we shall meet with something satisfactory.—**R. MATTHEW:** April 18.

GREAT CRINNIS.—Our sampmen are still clearing out the 80 fms. level as fast as we can discharge the stuff with horse-wheel. I cannot tell as yet the extent of this trial, but so far as I have examined it I find the lode large, and of a promising character. The men are still uncovering the middle lode in the 24 fms. level. In driving east of Cornish's shaft in the 10 fms. level, on the north part, we have a good prospect; this being in whole ground will probably lead to new shoots of ore. The stopes and tribute pitches are producing silver and copper ore just as for some time past. I consider the general features of the mine equal to my expectations, it being only 10 months since we commenced pumping the water.—**J. WASS:** April 17.

MINING IN CALIFORNIA.

[FROM OUR CORRESPONDENT—MARCH 1, 1854.]

NEW DIGGINGS DISCOVERED.—New diggings have been discovered at Remick Hill, Nevada county, Sacramento, which pay \$1 to the pan. Great excitement prevails among miners, and acres of ground in the vicinity of the newly-discovered diggings have been staked off.

THE BIG LUMP.—Last week a German boy, named Fritz, and a coloured man, named Duff, while prospecting in the gulch between Palmer, Cook, and Co.'s mill and the quartz mill, distant a few hundred yards from town, found a block of old-bearing quartz, weighing 193 lbs. It is one of the largest and most beautiful specimens we have ever seen. There are various estimates of the value of this lump, ranging from \$500 to \$10,000. This is the very spot which was taken possession of, by Mr. Andrew Smith, for the Golden Mountain Company. It is a very authentic locality. Another man picked up a 37 lbs. lump of gold on the same ground.

THE BIGGEST LUMP YET is one reported to have been taken out at the Nevada diggings, worth \$20,000.

On Monday, 13th inst., a lump of pure gold, weighing 8 lbs., was dug at Indian Gulch, near the Stanislaus. The claim is owned by a company of five. The same day they washed out 6 ozs.—an average day's yield.

The ordinary yield at the Colorado diggings, in Mariposa, is from \$16 to \$30 per day to the hand. In some instances the yield reached \$100 per day, and one claim \$250 per day.

In consequence of having a copious supply of water, the miners in Shasta county have recently taken out an unusually large amount of gold dust.

At Dry Creek, Yuba county, a considerable excitement has been created by the discovery of new and very rich diggings.

CHERRING NEWS FROM MARIPOSA.—A correspondent of the *S. J. Register*, writing from Hornitas, under date of Feb. 17, says:—"We have plenty of water for mining purposes, and everybody seems to be making money. We hear of no grumbling about hard times, scarcity of money, &c. The Canal Company have a large supply of water in their ditch, and the miners are able to work in places that before have never been disturbed by pick or shovel. Some companies are making as high as \$40 a day to the share; others from \$12 to \$20, but very few are making less than half an ounce per day. And yet, but comparatively a small portion of the ground in this vicinity is being worked. Business is reviving in Stockton, twenty teams were loading at one time on the Levee yesterday morning for the mines."

The Mariposa Chronicle gives a very favourable account of mining operations in that county since the late rains, which have started the water in most of the old ravines. The entire vicinity of Colorado Camp is proving rich, the average yield being at this time from \$16 to \$20 per diem to the hand. In some instances it has reached \$100 per day. Forney and Chaffield's claim is paying an average of \$250 to the claim of Moore and Marshall, at Sherlock's Creek, yielded in one week \$1100 to the claim, clear of all expenses. The gold is found on a ledge of quartz, which was reached by driving a distance of about 150 feet. Some specimens in pure gold, weighing over \$600, were exhibited. The miners on Agua Fria Creek are said to be equally prosperous.

EXTRAORDINARY RICH DIGGINGS.—A correspondent of the *Union*, writing from Yankee Jim's, under date of Feb. 13th, says:—"The richest diggings properly in the state, are those of Iowa Hill, six miles north of here, which are just being worked. The first company which located claims there has run a tunnel or drift, and has shown in proving their claims, which resulted in raising the price of the claims of the usual area from a few hundreds to twelve thousand dollars each. Twelve claims within the whole could have been bought for \$5000; to-day nothing less than \$25,000 could purchase them. Nineteen ounces have been taken from a single pan of \$250 to \$1000 are daily extracted, and two others yield partly proven. In one tunnel has been run, at the present terms of which the gold can be seen with the naked eye, as it lays in the dirt, which pays for the depth of 15 feet, for three weeks since shares in this company of 1-10th each were offered for \$400, for they are worth \$3000. In another, lying adjoining, shares are worth \$6000. The mentioned of the foregoing companies has a water privilege of \$2000, the others are not. There are other and rich diggings near these, from all of which will be the present season immense sums of gold. At Forest Hill, too, east of us, from \$750 to \$1000 are daily extracted, and two others yield partly proven. The gold is not to be bought for less than \$100,000, were offered, I am told, at \$12,000."

The Grass Valley Telegraph of Thursday, after speaking favourably in general terms of mining operations in that locality, and of the prospect of a speedy and profitable change in the state of the money market, stated as follows:—"Census Mining Company, on Eureka Slide, are running a drift of several feet in length into the heart of the hill, the whole extent of which is supposed to contain deposits as rich, or richer, than any yet discovered in the vicinity of Grass Valley. The Census Company are as yet only fairly prospecting their claims, and yet, as an insight into what they are doing, on last Saturday, one of the company informed us that as a part of a day's work they had netted \$275, in as pretty dust as has been brought into market. The Census Company, also, Pike Flat, are doing a good business, that averages out about \$12 per day to the hand. The Old Day diggings are also holding out well, and the miners in them are doing well. A gentleman working there informs us that it is not uncommon for them to pick up lumps weighing from \$10 to \$40."

A telegraphic despatch from New Orleans announces the arrival there, on the 5th inst., of the steamer *El Dorado*, with dates from San Francisco to the 28th March, a fortnight later than previous advices. The steamer *George Law* was sent from Aspinwall on New York on the 31st March, with 500 passengers and 1000 tons of gold-dust. The *El Dorado* reported the gratifying fact that Lieutenant Adams and his party of explorers were safe, and had arrived on the Pacific coast. The steamer leaving San Francisco on the 16th March had over \$2,000,000 in treasure, the mining accounts were still exceedingly favourable. The country was healthy, but the rainy season had been unusually severe. The San Francisco markets were quite stagnant. Six failures, including two commission merchants, had occurred. Money was stringent, and real estate had largely declined in value. Col. Fremont had been overtaken in the mountains, going the central route to San Francisco, and several of his party had died of cold and hunger.

MINING IN AUSTRALIA.—We have advices from Australia by the *Harvard*, which arrived at Southampton on Tuesday. Her dates are—Sydney, Jan. 1st; Melbourne, 22d; St. Vincent, 31st. Amongst the cargo was 75,344 ozs. of gold. In Western Australia, at the Geraldine Lead Mines, the smelting processes have been attended with satisfactory results. The lead ore at the mines have been determined by accurate analysis to return nearly 80 per cent.; but the yield has been infinitely below that standard. There had been lately a slight change for the better; but still the produce of 42 tons 16 cwt. of ore was only 16 tons 12 cwt. 3 qrs. 11 lbs., or about 34 per cent.

An important discovery has been made in the neighbourhood of Lunenburg, in favour of a deep stratum of quartz sand, about 4 ft. below the surface, and which is found to contain quicksilver in the proportion of nearly 1 lb. of that metal to a cubic foot of the sand. The authorities have taken the necessary measures for working this valuable discovery.

LITERARY NOTICE.

The Commercial Products of the Vegetable Kingdom. By P. L. SIMMONDS. 8vo, pp. 700.—London: Day, Carey-street.

There is no subject of more importance to our merchants, producers, and consumers, at the present time, than full and correct information as to the products of the various regions. Great Britain is mainly dependent on foreign countries for the great variety of her food, condiments, drugs, textile fabrics, dyes, tanning substances, and other articles of her arts and manufactures; any stimulus, therefore, given to the production of her colonies—any authentic details as to the present and future sources of supply of the leading products of commerce, which are the mainstays of our manufacturing prosperity, are doubly valuable now, when our merchants are casting their eyes about for various raw materials of which there is at present so great a dearth. The name of Mr. Simmonds is so honourably identified with our periodical literature, that he has devoted himself so long, and so ably, and so perseveringly, in advocating the interests of our colonies—the position he so creditably fills as City editor of the *Newspaper*—his talents as a scientific lecturer, and his vast statistical and general knowledge on every current topic, acquired from a long connection with the editor of the foreign press (no other person, perhaps, being so persevering a student of the foreign press), and so indefatigable a correspondent of the *London*, agricultural, commercial, and scientific societies of which he is an honorary member—all these literary pursuits, coupled with a considerable experience as a West India planter, have given him facilities enjoyed by few for the preparation and completion of such a work as the one under review.

It is surprising that no such work should heretofore have appeared; for the only book bearing the slightest resemblance to this admirable manual of agricultural, commercial, and scientific information we can remember, was Mr. Porter's *Tropical Agriculture*, published some 20 years ago, but which was more meagre in its information of our husbandry, our arts, and manufactures. New products of industry have since a few years been discovered, which have revolutionised the old staples—new gums—new oils—new dyes—new fibres—new wants, and new supplies for the wants of our commerce. Free trade, too, has opened up new channels of import and export to commercial transactions, that both producer and broker are elevated in scale far above the rank they assumed some years ago.

Mr. Simmonds's volume is most ample in its details. The arrangement of the subject, in judicious, and as applicable to food, the arts and manufactures, medicine, and prices, must prove most important to every class of society, and is such as the understanding, but the first of a series, to be followed by other manuals, treating of the textile products and substances available for paper manufacture, and the commerce of the animal and mineral kingdoms. The statistics and details of the various products of the colonies, and the manner in which they are produced, are given in Mr. Simmonds's hands, prove equally interesting and instructive to the merchant, planter, and broker

TRELOWETH.—The engine-shaft is sunk 5½ fms. below the 70, on a very low level; the south side of the shaft, for 18 in. wide, contains very good copper ore; the north part contains a little iron and calcareous matter, that in sinking the ore part of the lode will increase in width, and gradually wear out the capel. The 70 ft. level is driven east of Cole's 16½ fms.; the first 3 fms. is in a good bunch of yellow ore, since which the lode contains a very promising appearance for copper, although it does not yield much in the present end; 4 fms. east of the 70 and a mine has been sunk 6 fathoms below the 60, in which we have a good bunch of copper ore, yielding 3 tons per fm.; and in consequence of the water in the bottom of the mine, preventing our sinking deeper until the 70 fm. level drains it, we have set to drive east from

the bottom of the winze, where the lode will yield 3 tons of good quality copper ore per ft. and the level, west of the winze, will yield 4 tons per ft. It will be a great relief to have the water cut down to the 70, so that we may resume sinking the winze, and provided we cut as good a lode in the 70 end as we have at present in the winze, the part of the mine above will turn out a large quantity of copper ore. To venture upon the extent until the winze is communicated would be premature; at the same time, I have every reason for believing that we shall make regular and monthly. The copper ore sold on the 14th inst. realized 222. 11s. 6d.; the small parcel was of good quality, and the ore in the winze and level, east and west of it, is much the same. I have every reason for believing that we are close upon a rich mine, and expect that the 80 ft. level will prove very productive. The engine works well, and of ample power to prove the mine to a considerable depth.—April 15.

TREMOLLETT DOWN.—The lode in the No. 3 level, going east, is showing signs of improvement; it is composed principally of quartz, and a quantity of jack, and occasional spots of copper ore; there is still a strong flow of mineral water coming from this end. The lode in the winze is about 2½ ft. wide, composed of mudi and quartz, and now and then a little lead. The water here comes on so fast that we are obliged to suspend sinking; it would take the men three-parts of their time in hauling water. I have put two men to drive the end west, and the other two men in the cross-cut. I have great pleasure to announce, on Thursday evening we picked into a new branch, which I hope will be of considerable interest. I hope to be able to report more fully on it next week. I hope the necessity of a winch in this place will be soon considered, as it is so expensive for wheeling the stuff.—J. RICHARDS: April 15.

TRENOW CONSOLS.—The shaftmen have been casing and dividing the feed-lift shaft, also the engine-shaft, this week, and are now removing away the earth for the condensing cistern. The masons have begun to raise stones and clay, and will pay for the carriage of the same, and build the boiler-house, which they have taken at £2. 6d. per perch. The timber is now on the mine for the cistern, spring beams, caps, capstern, and main roof, for the engine-shaft. We have two pairs of saws cutting timber daily, for various purposes. Some of the carpenters are working on flooring, &c., for the engine-house, while others are getting the shears, &c., &c. The blacksmiths are getting sundry ironwork for the shears, which we expect will be up in its place early next week. The boilers, cylinder, and other castings, are daily expected on the mine. The tribute department is much the same as was last reported. On Friday the 28th inst., the account will be held on the mine, when we trust that the adventurers will be highly pleased to see that everything has been pushed on with spirit, and that the strictest economy has been observed throughout our proceedings.—J. SMITH: April 19.

TRESELLY CONSOLS.—I have sent four men to work in the adit level, to clear the channel, to put it in a proper state for driving towards the fine lode in the 10; consequently, when the driving is as far in as the shaft, the lode will be in a more steady state. I am of opinion that this will not fail to produce a valuable issue. I have also the pleasure to assure you that there is (when required) an ample supply of water to run an engine of power sufficient to keep the mine dry to a great depth, which is of immense importance. I feel certain that steam-engines will not be applied before the mine is of very large extent, of which, however, so fine a lode as this holds out great promise.—J. PHILLIPS: April 18.

UNION TIN.—We have resumed driving on the side of the lode in the 20 fathom level, at 20s. per ft. In driving the 10 ft. level east, where the lode is large and promising. I believe, after reaching a certain point, where the old workers sank, we may find, we shall have great quantities of tin. The ground is all excavated for the foundation of the engine-house, and a large quantity of excellent quarry-stone ready. The masons will commence building on Monday next.—P. WEBB: April 20.

VALK OF TOWY.—Clay's engine-shaft, sinking under the 20 ft. level, is harder than last reported. In the 20 ft. level, driving south of said shaft, the lode is 1½ ft. wide, producing 8 cwt. of lead ore per ft.; driving north the lode is 2½ ft. wide, intermixed with lead. In the 10 ft. level, driving north, the lode is 2½ ft. wide, producing 4 cwt. of lead ore per ft.; no ground opened in the south end since last reported—the men having been taken off to raise stone for the engine-house, &c., with which we are now progressing. In the winze sinking on the bottom of the 10 ft. level, south of Clay's engine-shaft, the lode is 4 ft. wide, producing 10 cwt. lead ore per ft. In the winze sinking in the bottom of the deep adit, to the south of Field's shaft, the lode is 3 feet wide, producing 10 cwt. of lead ore per fathom. Our tributers work regular, and are getting fair wages. We sampled for sale, computed 32 tons of lead ore, on Saturday last.—S. THOMAS: April 20.

WEST BASSET.—North Lode: The rise in the back of the 84 ft. level continues to produce 4 tons, and the winze sinking under the 75 ft. level 6 tons per ft. The 75 ft. level east is now worth 6 tons; the same level driving west, behind a horse of ground, is producing 10 tons per ft. The 65 ft. level east will turn out 8 tons per fathom.—South Lode: The stone in the back of the 42 ft. level is worth 6 tons per fathom. Other parts of the mine are without alteration.—W. ROBERTS: April 15.

WESTON.—The ground in the Ryder level has assumed a different character to anything we have before met with; it consists principally of carbonate of lime, with ideas filled with decomposed matter. I think the best mode of cutting the silver lode; if we do not by driving a few yards further, I shall cross-cut into it, so that we may be able to drive the lode, and we should have crossed it before this. I am unable to meet with men to burn the bricks, unless they are paid once a fortnight. If I am to agree to this, perhaps you will forward me an early reply: the expense will be no small pounds, and the saving would be great, as the clay is quite ready.—R. P. EDWARDS: April 19.

WEST PAR CONSOLS.—We have intersected the first lode in the 30 ft. level, which is full 2½ ft. wide, composed of quartz, peach, mudi, and spots of copper, and is altogether a promising lode. We intend to extend west on its course immediately, and at the same time continue the cross-cut north to intersect the other lodes. We have now seen sufficient to recommend sinking the engine-shaft to deeper levels. We shall require in this mine patience and perseverance, but I am fully persuaded we shall be amply rewarded.—J. W. WEA: April 19.

WEST SORTIDGE.—The tin lode in the adit level is about 2½ ft. wide, and still produces some saving work for tin. The gossan lode is about 2 ft. wide, looking very kindly, and showing occasional spots of mudi in the gossan. No alteration worthy of notice elsewhere.—JOHN FAYON: April 19.

WEST WHEAL ALFRED.—In sinking Carr's engine-shaft below the 55 fathom level the lode is 8 ft. wide, 3 ft. of which contains very good yellow ore. In driving the 55 ft. level, for the first 20 fms. the lode contained some very good ore, and generally looked better towards the bottom of the level than upwards, although the tributers have broken some good ore in the back of the 55 ft. level; this level is extended west to, and communicated with, Mexico shaft; until the level was parallel with the cross-cut driven on the south side of the lode, but in driving north, to hole to Mexico shaft, we discovered a good lode on the north part. The 55 ft. level will yield 3 tons per ft., and west end 1½ tons; these two points open some good ground, but it will require time ere tributers can work the backs advantageously. At Cole's engine-shaft, below the 40, the ground is hard, but we do not think it will be of long continuance, inasmuch as no hard ground was discovered in Leman's, Mexico, or Carr's shafts. The 40 ft. level is driven south of Cole's shaft to within 9 ft., or 2 fms. of the lode, and as the lode has not been seen below the 10 ft. level in this part of the mine, it is an anxious point to see, inasmuch as the 10 ft. level looked promising for copper; it is but fair to presume that we shall cut a good lode for copper at this point. The future sales of copper ore will depend on the success in cutting the lode in the 40, as well as the continuance of the ore in the levels east and west of Mexico shaft, besides the engine-shaft; but independent of these points the future sales will be equal to the past. We continue to believe that this mine will be wrought highly productive in depth, and at no distant period.—April 15.

WHEAL ARTHUR.—North Lode: The lode in the 50 ft. level is 4 ft. wide, yielding good stones of copper ore. The lode in the 35 ft. level is 5 ft. wide, producing 1 ton per ft., worth 8½ p. ft. The lode in the 30 ft. level is 3 ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 20 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 10 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 5 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 2 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the ½ ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the ¼ ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/8 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/16 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/32 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/64 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/128 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/256 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/512 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/1024 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/2048 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/4096 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/8192 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/16384 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/32768 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/65536 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/131072 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/262144 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/524288 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/1048576 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/2097152 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/4194304 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/8388608 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/16777216 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/33554432 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/67108864 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/134217728 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/268435456 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/536870912 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/1073741824 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/2147483648 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/4294967296 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/8589934592 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/17179869184 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/34359738368 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/68719476736 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/137438953472 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/274877906944 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/549755813888 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/1099511627776 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/2199023255552 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/4398046511104 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/8796093022208 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/17592186044416 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/35184372088832 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/70368744177664 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/140737488355328 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/281474976710656 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/562949953421312 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/1125899906842624 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/2251799813685248 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/4503599627370496 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/9007199254740992 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/18014398509481984 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/36028797018963968 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/72057594037927936 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/144115188075855872 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/288230376151711744 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/576460752303423488 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/1152921504606846976 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/2305843009213693952 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/4611686018427387904 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/9223372036854775808 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/18446744073709551616 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/36893488147419103232 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/73786976294838206464 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/147573952589676412928 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/295147905179352825856 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/590295810358705651712 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/1180591620717411303424 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/2361183241434822606848 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/4722366482869645213696 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. 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The lode in the 1/2417851639229258349412352 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/4835703278458516698824704 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/9671406556917033397649408 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/19342813113834066795298816 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/38685626227668133590597632 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/77371252455336267181195264 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/154742504910672534362390528 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/309485009821345068724781056 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. 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The lode in the 1/158456325028528675187103260672 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/316912650057057350374206521344 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/633825300114114700748413042688 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/1267650600228229401496826085376 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/2535301200456458802993652170752 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/5070602400912917605987304341504 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/10141204801825835211974608683008 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/20282409603651670423949217366016 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/40564819207303340847898434732032 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/81129638414606681695797869464064 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/162259276892133363391595738928128 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/324518553784266726783191477856256 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/649037107568533453566382955712512 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/1298074215377066907132771911425224 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/2596148430754133814265543822850448 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/5192296861508267628531087645700992 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/10384593723165335257062175314001984 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/20769187446330670514124350628003968 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/41538374892661341028248701256007936 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/83076749785322682056497402512015872 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/166153499570645364112994805024031744 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/332306999141290728225989610048063488 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/664613998282581456451979220096126976 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/1329227996565162912903958440192253952 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/2658455993130325825807916880384507904 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/531691198626065165160158336076801581808 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/10633823972521303303203166721536031637616 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/21267647945042606606406333443072063275232 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/42535295890085213212812666886144125504464 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/85070591780170426425625333772288251008912 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/17014118356034085285125066754456452017824 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/34028236712068170570250133508912904035648 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/68056473424136341140500267017825808071296 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/136112946848272682281000534035651614254592 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/272225893764545364562001068071303282285088 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/544451787529090729124002136142606564570176 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/1088903574558181458248004722852131281140352 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/217780714911636291649600945704426256228064 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/435561429823272583299201891408852512556128 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/8711228596465451665984037828177650251132256 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/1742245719293090333196807656355310502264512 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/3484491438586180666393615312710621004529024 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/6968982877172361332787230625421242009056 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/139379657543447226657744613088248401821112 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/278759315086894453315489226176496803642224 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/557518630173788906630978452352993607284448 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/1115037260347577813261956904705987214568896 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/2230074520695155626433913809411974428177792 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/4460149041390311252867827618823948856355584 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/8920298082780622505735655237647897712711168 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/17840596165661245011471310475295794442822336 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/3568119233132249002294262095059158888544672 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/7136238466264498004588524190118377777889144 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/1427247693252899600917704838023675555777888 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/285449538650579920183540967604735111155577776 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/570899077301159840367081935209470222311115552 ft. level is 1½ ft. wide, producing 2 tons of ore per ft., worth 10½ p. ft. The lode in the 1/114179815460231968073

From H. F. C. Haaselein, dated April 10:—"The lode we have cut is the most extraordinary I ever saw, and has every appearance of being a lasting one. I am a chemist, a miner of great experience, has the most favourable opinion of it. It is in the San Enrique level, at 80 varas east. The lode in the Santa Marguerita level, 20 varas east, now worth 4 tons per fathom, and improving daily, is coming towards it, and, indeed is the same lode, only at 20 varas less depth, so that we suppose the

The Imperial Brazilian Mining Association have advices to 1st March. At Conga, the samples daily taken were encouraging. The level from Camp Pando was proceeding briskly. At the Camara, the various works were proceeding rapidly. The ore from shaft B had rather improved in quality. Capt. Pengilly was in expectation that another month would find the end immediately below the reported rich zone. There remained to be driven to gain that point 14 fms. 5 ft. 6 in. The washings for the last month were as follows:—Goldamid's stamps, 1 lb. 3 oz. 10 dwts.; Washers', 9 oz. 5 dwts.; Walker's stamps, 9 lb. 1 oz. 13 dwts.; Joinville's, 1 lb. 3 oz. 5 dwts.; Camara, 9 oz. 6 dwts.; tubs, 1 lb. 10 oz. 10 dwts. = 14 lbs. 8 oz. 7 dwts.

The National Brazilian Mining Association have advices to 1st March. The poverty of the ore continued. At Cuaiaba, 1 oz. 10 lb. 36 grs. were obtained from 25 loads of stuff put down at the stamps by Carlos Jose. This per centage, it was considered, was sufficient to show that a large company could work the property at considerable profits, were the extensive stopes opened by driving the deep adit. [A letter from a correspondent on this company's property, in another column, is well worthy serious attention.]

The Copiapo Mining Company have advices to the 1st of March. At San Agustin, the lode was yielding very well. In the 33 the lode was very large; and on the western wall there was a good branch of ore, about 15 in. wide. In the 35 the lode was 2½ ft. wide, producing a fair quantity of ore of about 24 per cent. In the 36 the lode was from 3½ to 3 ft. wide—the western part of which was good. In the 37 the lode was 15 in. wide, of ore of about 22 per cent. At El Fin Hualde, in No. 1, the lode was 9 in. wide, with ore of good quality. In No. 10 the lode was 18 in. wide of good ore. In No. 11 the lode was 15 in. wide, with ore of about 30 per cent. The class of ore from this mine was becoming richer. In one specimen they sent away 60 tons, and had a prospect of increasing the quantity. The Carmen Alto was producing some good ore. In the San Jose del Carmen, the Veta Grande lode was looking more promising than for a long time.

The Royal Santiago Mining Association have advices to the 15th March. The 44 was Taylor's shaft, had greatly improved; the lode was 6 feet wide, ore throughout, but the principal leader was in the middle part, and 9 in. wide: it was more free from mud than usual, and would produce 4 tons of good ore per fm. This improvement is attributed to the junction of the north part of the lode. Apparent westward were very encouraging.

The St. John del Rey Mining Company have advices to the 28th Feb. The produce for Jan. was 28,661 oits., equal to 275,345 lbs. troy. Had it not been for the unfortunate stoppage at the beginning of the month, the month's produce would have been nearly 30,000 oits. The profit for Jan. was \$399.7 13s. 4d. The supply of ore from the mine continued much as usual, but somewhat improved in quality.

The Cologne Mining Company have advices to the 17th of April. At Rotherbush, the lode in the 10 ft. level was composed of quartz and copper ore, worth ½ ton per fm. At Vahlberg, the ground in Delzell's shaft was much the same as that reported. The lode in the stope in the bottom of the adit level was worth ½ ton of copper ore per fm.; there was also some good iron raising from the same stope. At Fahrenberg, the lode in the Emma shaft was 5 ft. wide, and in it there was a branch of lead, about 5 in. wide, for half the length of the shaft. At Caillia, the lode was composed of lead and blende, worth ½ ton per fm. The lode in the stope in the back of the 22, east of the Caillia shaft, was 1½ ft. wide, composed of blende and bones of lead, producing 3 tons per fm. A great quantity of mineral was at the surface. At Bilsbach, the lode in the stope in the back of the 5 ft. level is composed of blende, producing 2½ tons per fm. They had begun to dress the blende, which was turning out very well.

The Rhenish Mining Company have received a report from Capt. W. W. Vian, dated 17th instant. At the Rhond Mine, the deep adit had been driven 1½ meters into the flook, and to get through it will take two months. The new shaft was communicated to the shallow adit. In the deep adit, on Von der Beck's stope, they had passed through a small bunch of rich yellow copper ore; but the ore, though favourable in appearance, does not continue productive. At Bensen's stope there is a strong lode, producing white iron and a little copper. The works here have been only preparatory, but they are now opening new ground, presenting fair indications; and in the shallow adit it shows the most favourable appearance. At Kesseling, the lode continues to improve; yellow ore of the richest description in great abundance. On the Kesseling River they can get a fall of 16 ft.—ample to work the gold-crushing machine. The copper was being sent to Cologne for shipment to Rotterdam, thence to Liverpool; and they had about 100 tons of iron ready for sale.

The Rocky Bar Mining Company have received advices to the 20th of February. Mr. Seyton, the mining engineer, reports, that if he can get a sufficient stamping-apparatus, and a well-constructed mill, he has no doubt of success. With work of an average value of \$17 per ton, and crushing 25 tons per day, he could guarantee \$40,000 for 266 working days, at the present prices for labour. If he could send a mill with one pair of crushers and 18 or 24 stamps, he could make the Rocky Bar follow hard on the steps of the Agua Fria; such a mill would cost \$40,000. The stamping at Golden Hill yielded in 16 days a profit of \$1741, the Rocky Bar share being \$550; he estimated the produce of the sluice at \$300 per week. The company were out of debt, and had in hand \$8776. He expresses his belief that the company are now in a sounder position than ever.

From the Keweenaw Point Copper and Silver Mines (Lake Superior), Captain Horne reports (10th March):—"We have a great improvement in our mine. In cross-cutting 2 feet west of No. 3 shaft we cut the lode; where we first cut through the lode it was 2 feet wide, well composed and well charged with copper. We have commenced drifting north; the vein improves in size in going north. We have worked the lode 12 feet; the vein at present is from 5 to 6 feet wide; the size of the stuff the drift produces is good stamps work; I should judge it worth 8 to 10 per cent. for copper. I shall put in more men to drive south, and also get ready for sinking in a few days. I have seen all the mines that have been opened on this Point, and I can truly say I have seen none that will compare with our present prospects. The vein in No. 1 shaft is also improving; though poor, it is more compact, not so much trap-rock intermixed with the vein as there has been. The houses, blacksmiths' and carpenters' shops are completed."

The Marquette Mining Company have received the following advices:—Ore raised, 1500 tons; rough ore, remains, still stuff, and remains of remains stamped, 1534 tons; average number of stamps—heads at work per diem, 81.8-10; daily stamp per stamp-head, 12-10 cwt.; fine gold obtained per ton of ore stamped, 6.10 grs. Fine gold. Obtained from the stamping-mills. Ores. 675 15. ditto on tribute 10 8. ditto on purchase 178 6=864 3 ozs. Cost. \$14,434 | Returns. \$31,905

SUMMARY OF STAMPS' WORK, AND GOLD OBTAINED, FOR THE MONTH OF JANUARY, 1884.

Mills.	No. of stamps at work per diem.	Ore raised in tons.	Ore stamped.		Ore raised in tons.	Ore stamped.	Ore raised in tons.	Ore stamped.
			Stamps.	Per ton.				
At. No. 1.	7-10	10-10	10-10	10-10	10-10	10-10	10-10	10-10
At. No. 2.	10-10	10-10	10-10	10-10	10-10	10-10	10-10	10-10
At. No. 3.	10-10	10-10	10-10	10-10	10-10	10-10	10-10	10-10
At. No. 4.	10-10	10-10	10-10	10-10	10-10	10-10	10-10	10-10
At. No. 5.	10-10	10-10	10-10	10-10	10-10	10-10	10-10	10-10
At. No. 6.	10-10	10-10	10-10	10-10	10-10	10-10	10-10	10-10
At. No. 7.	10-10	10-10	10-10	10-10	10-10	10-10	10-10	10-10
At. No. 8.	10-10	10-10	10-10	10-10	10-10	10-10	10-10	10-10
At. No. 9.	10-10	10-10	10-10	10-10	10-10	10-10	10-10	10-10
At. No. 10.	10-10	10-10	10-10	10-10	10-10	10-10	10-10	10-10

The above was obtained from the water stamping mills, and without the aid of quicksilver, at an expense of \$1.50 per ton, including all reduction charges. The rough ore is considered to contain an average of 87.5% of fine gold per ton. It will be observed that about 12 dwts. is obtained direct from the rough ore; but as the remains, and remains of remains, are the residue of the rough ore, the total product of gold obtained now per ton of rough ore treated is 16 dwts. 8 grs., being within a fraction of the estimated contents.

SANTA ANA MINES, FOR THE MONTH OF JANUARY. Ore raised, 412 tons; mine produce for amalgamation, 32 tons; rough ore stamped, 1534 tons; average number of stamps—heads at work per diem, 81.8-10; daily stamp per stamp-head, 12-10 cwt.; fine gold obtained per ton of ore stamped, 6.10 grs. Fine gold. Obtained from the stamping-mills. Ores. 675 15. ditto on tribute 10 8. ditto on purchase 178 6=864 3 ozs. Cost. \$14,434 | Returns. \$31,905

The Nouveau Monde Gold Mining Company have advices from their superintendent, Mr. J. H. Clement, in California, dated Mount Ophir, Feb. 23, according to which the usual monthly report on the mines and reduction works. Mr. Clement states that Mr. Barnden was proceeding with the erection of the hydrostatic system of pumps as fast as possible; that he had seen some reefs of ore passed through the mine, and that he likes its action much. He adds, that he considers the system of stamping as decidedly the best of any yet brought out. He expected to make a rough trial of them in the course of the week, and that by the end of a month he should be able to try them very correctly. The account of the work executed at the mines during the month is very satisfactory. Mr. Clement had concentrated the agents of the mine action works. In addition to the superintendent's report, Mr. Barnden, who had been in London, had received a very interesting letter from Mr. McDonald Fraser, who had returned from England to California, containing a full description of the mines and works, and expressing a sanguine view of the success of the company.

The Colonial Gold Company have received advices, by the Harbinger, from their superintendent in New South Wales, to the 30th Dec. Mr. Spence writes from Louisa Creek:—"You will be glad to learn that this morning (the 30th) we got up steam for the first time, and tried the engine. It worked most beautifully from the first, without a jar, leakage, or anything objectionable. We put the wheel round about 30 revolutions in the minute, and there was no little satisfaction at the completion of so important a portion of the undertaking. The large wheel of the crushing house is to be on the ground this evening, which we shall soon have in its place, and then the rollers will be raised to the cradles, and we shall finish the walls and cover all in. One of the kilns is ready, another nearly so, and the tramroad is being laid down, not only along the ridge and to the house, but also on an inclined plane into the long level, so as to do away as much as possible with the windlass." Mr. Spence calculates that he can deliver and reduce 30 tons of quartz per day, one month with another; and taking the average at 30 tons per diem, for 25 days in the month, or at the rate of 9000 tons per annum, he estimates that all charges for breaking down, quarrying, raising, breaking, loading waggons, and delivery at kilns, for calcining, and expenses of engine and reduction houses, and general superintendence and incidentals, will amount to (per ton of quartz) 12. 10s.

Value of gold per ounce £10 0
Less royalty, 3 per cent £0 2 1½
Proportion to Great Nugget Company 0 13 7
Estimated charge 1 10 0 = 2 5 8½

Supposed profit £1 4 3½ per ton on 30 tons per diem, yielding 1 oz. And he adds:—"Should we realise the success thus anticipated, I shall immediately proceed to make all necessary preparations for raising a more extensive establishment in one of the many localities open to us, where auriferous quartz can be obtained in abundance, on Government ground."

The New Granada Company have received letters dated Feb. 21, advising the safe arrival of the financial agent at the mine of Bolivia, where he found the first mill of 12 stamps completed, the second already commenced, and the tunnel for conveying the water to the mills nearly finished. 4000 tons of excellent ore had been got out, so that the results of the expenditure upon this property will soon be apparent. Great economy was being used in the conduct of the works, and a distinct statement of the accounts would be shortly forwarded to the directors.

Business in the Gold Mining Share Market this week has been almost at a standstill. Sellers and buyers equally hold aloof; and in no instance has there been any important change in prices. The Carson's Creek Company, we understand, are about to re-commence operations. Previous to so doing, it would be politic if they held a public meeting, so that their shareholders might be informed of the status in quo. The chairman of the Anglo-Californian Mining Company has likewise published a statement, excusing Sir Henry Huntley, their local manager, attributing the delays that have arisen to the defective machinery sent out from here. This may probably be the case; and without making any harsh comments, they are no excuses for the extravagant statements which from time to time have been received from Sir Henry Huntley. We mentioned last week that gold had been discovered in Ceylon; we have now to report that this has taken place at the Cape of Good Hope. We do not dispute the fact; but, considering the doubt which is thrown on nearly all the Californian and Australian adventures, no legitimate speculation can take place in these localities until absolute results are arrived at elsewhere. The arrivals of gold this week have been—The Harbinger, with 23,000 ozs. of gold; and the Sovereign of the Seas, with 37,300 ozs., making a total of 110,300 ozs., valued at £41,200. The transactions on the Stock Exchange will be found in the usual place. The non-official are—L'Algle d'Or, ¼ to ½ dis.; Golden Mountain, ¼ to ½ dis.; London and Virginia Gold, ¼ to ½ dis.; par; Garnett and Moseley, par to ¼ prem.; Chancellorsville Freehold, ¼ to ½ per share.

In Miscellaneous Shares the market has been steady, showing an upward tendency. Australian Agricultural opened at 36½ to 37; Peel River, 3½; Netherlands Land, 1 to 1½; South Australian Land, 31; North British Australian, ¼ to ½ dis.; Crystal Palace, 6½ to 7; Scottish Australian investment, 2½ to 2½ ex. div.; Van Diemen's Land, 9 to 11. These prices have been fully maintained during the week, and in Crystal Palace shares a decided improvement has taken place considerable business being done on Thursday at 7½, but yesterday they slightly receded, closing at 6½ ¾; Australian Agricultural improved yesterday from 37 to 38; the other land shares remained without alteration worthy of notice. In Joint-Stock Banks the closing quotations were—Australasian, 73 to 73½; British North American, 60 ¾; Chartered Bank of Asia, 3½; Chartered Bank of India, Australia, and China, 1½ to 1½ dis.; Commercial of London, 11 prem.; English, Scottish, and Australian, Chartered, 4½ to 5½ dis.; London Chartered Bank of Australia, 3 to 2 dis.; London Joint-Stock, 23½; Oriental Bank Corporation, 44 to 46; South Australia, 36 to 38; Union of Australia, 63 to 65; Ditto New, 6 to 7.

In Iron and Coal Companies, during the week, business has been done in Portland Iron at ½ prem., and Rhymer Iron has advanced to 29 31. In other companies the market has been unusually flat; indeed, scarce any transactions have taken place; the following are the nominal prices:—British Iron, 6 to 8; Rhymer Iron, new shares, 8 to 10; Australasian Coal, ¼ dis. to par; Mount Carbon Coal, ¼ to ½ dis.; Port Tennant Steam Fuel, 2 to 2½ prem.

At the first ordinary general meeting of the Commercial Credit Mutual Assurance Society, at the offices, 32, Threadneedle-street, yesterday (J. T. Bedford, Esq., in the chair), the first annual report of the council to the assured was read, in which they congratulated the mutual insurers on the amount of success which has attended the first experiment in this country for testing the applicability of the principle of mutual insurance to the protection of traders against commercial losses. The balance-sheet showed premiums payable by 239 houses, since the formation of the society, 25,471. 9s. 3d.; supplemental ditto, on increased returns, 1881. 0s. 2s.; increased ditto, 710. 19s. 1d.; debts recovered, 2963. 2s. 7d.; interest, 3s. 13s. 4d. = 31,032. 4s. 8d.—By premiums remitted on 23 cancelled policies, 803. 19s. 5d.; admitted claims, less 10 per cent. to reserved fund, 24,527. 1s. 4d. leaving balance on premium account, 2883. 5s., and on reserved fund, 2728. 19s. 3d. The premiums payable for the year 1884 amount to 31,006. 1s., exclusive of supplemental and increased premiums. Further policies have since been issued, and the aggregate annual returns of the policy holders amount to 4,925,000. The claims admitted since the commencement up to the 31st Dec. last are 781 in number. The report stated, that the council have no hesitation in giving their opinion, as the result of 18 months' experience of practical working, that it is founded on a sound basis, and that even in the present state of its existence, an assured has considerable advantage over an uninsured house; and that when it shall become fairly developed, it will be a most valuable and beneficial institution, and secure general safety to mercantile transactions. As this company, even in its infancy, has successfully tested a new and important commercial principle, we shall enter more fully into the subject in our next number.

The directors of the London and North-Western Railway are inviting tenders to be sent in by the 15th of May for the execution of the works of the Oldham branch contract, including the construction of a tunnel of 1200 yards in length.

The Antwerp and Rotterdam Railway Company have convened the first annual general meeting for the 4th May next, to be held at the company's offices, at Brussels. The line from Antwerp to Rozendael, with a service to Breda, and thence to Rotterdam, is to be opened with great ceremony on the 15th May, on which occasion an entertainment of an extensive scale will be provided for the shareholders.

The Galvanised Iron Company have convened a meeting for Thursday, when the directors and auditors will be re-elected; but no proceedings will only be of a formal nature, as it is intended to wind-up the concerns.

The Electric Gas Company have forwarded a great portion of the machinery (Shepard's patent) to Paris, for the purpose of lighting up the Invalides, where a handsome building has been already constructed for its erection.

The dissentient shareholders of the Chartered Bank of India, Australia, and China, comprising the holders of 19,000 shares out of a total of 32,000, have caused a bill in Chancery to be filed against the directors, individually, to obtain an injunction to restrain them from enforcing the call of 2s. finally made on the 20th inst., and from forfeiting the shares on its non-payment. While we must deplore this unseemly contest, it becomes our duty to call public attention to the views we advocated at the commencement of this injurious strife—we allude to the suggested consolidation of this bank with that of the Melbourne, Sydney, and Adelaide Chartered Bank, by which the liabilities of the former would be reduced from 1,000,000. to 400,000., with the power and advantage of increasing the capital as required up to 1,000,000., instead of calls being made up to 10% before business could be commenced. No call, we believe, could be legally requisite for nearly three years; while operations could be commenced at once, and in the best portion of the globe for such enterprises. The Australian Joint-Stock Bank, that only started 12 months since, has already divided 5 per cent. on its paid-up capital of 125,000. Australian banking does not require a large capital. Excessive capital only becomes a mere reserve or guarantee fund to the depositors. The effect of large deposits in realising handsome profits, even though low banking rates should prevail, and the division of these profits over a moderate capital, always ensure good dividends, to which the power of issuing notes, as possessed by the Melbourne, Sydney, and Adelaide bank, which has a valuable local Act, to the extent of the paid-up capital, would materially contribute. This would improve the position of the directors of the Chartered Bank of India, Australia, and China, as independent of the relief and advantage to their shareholders, it would be to their own positive advantage. Private interests in connection with India and China, may indeed be superior to losses upon calls; but the members of the board are persuaded would allow no such feeling to govern them. If the present company were to amalgamate with the Melbourne, Sydney, and Adelaide Bank, they could consolidate, and start with the Australian and New Zealand Chartered Bank. Government would, no doubt, take into consideration the circumstances under which the former Chartered Bank had lately been granted grant fresh powers. To illustrate the market value of the Chartered Bank of Australia, India, and China, considering that its shares are now at 5s., under the proposed consolidation of five shares into one, thus making 100. paid, and that these would range at 4 dis., we have 25 s. against 6s. for five original shares, or 4000s. as against 38,400s., which would be a good opening for operations. To guide our readers as to the probable value of such investments, we append the last statement of the results of the banks in operation:—

Bank.	Capital.	Dividends and bonuses.	Paid per share.	Price.
Bank of New South Wales.	£400,000	20 per cent.	£20	£32.
Comm. Banking Co. of Sydney.	200,000	20 per cent.	25	39 ex div.
Australian Joint-Stock Bank.	200,000	Estab. Dec. 1862	3	8 ex div.
Bank of Australasia.	300,000	15 per cent.	40	None offered.
Union Bank of Australia.	1,000,000	40 per cent.	£25 & £25 10s.	100 per ct. pr.

Mines.	Tons.	Price per ton.	Purchasers.
Caylan	13	£16 10	—
ditto	2	12 0	—
Wheal Mary Ann	72	£28 4	Sims, Williams, & Co.
ditto	73	9 4	ditto
Esqair Lico	59	10 2	Dilwyn and Co.
Penhale Consols	50	£15 0	J. T. Treffry.
Laxey	100	£26 16	Sims, Williams, & Co.
Newlands	100	15 18	J. F. Eytton.
Great Wheal Badden	23	£18 16	—
ditto	9	12 10	—

Mines.	Tons.	Price per ton.	Amount.	Purchasers.
Trevelen	7 7 2	£72 0	£531 6	Williams.
ditto	0 9 3	58 0	33 6	ditto
Penance Consols	1 6 3	£71 0	£93 11	Boltho.
ditto	0 11 13	57 0	33 8	ditto
ditto	0 2 3	48 0	6 12	ditto
Wh. Augusta (leav.)	0 8 3	67 0	29 11	Williams, & Co.
Boorn (leavings)	0 7 3	50 0	19 13	Boltho.
Lewis	16 11 3	£58 10	£1218 9	Boltho.
ditto	1 5 3	63 0	1282 2	Bisase Company.
Folberr	19 10 0	63 15	181 17	Calenick Co.
ditto	2 10 0	61 15	555 0	Daubuz.
Bottle Hill	8 0 0	69 7 6	—	—

Sampled March 23, and sold at Swansea April 18, 1884.

Mines.	Tons.	Produce.	Price.	Mines.	Tons.	Produce.	Price.
Cobre	50	21½	£23 14 6	Waterloo Slag	15	9	£3 12 0
ditto	57	21½	22 10 0	ditto	8	13½	14 14 0
ditto	56	21½	22 14 6	Lackamore	50	8½	8 16 0
ditto	55	22	23 3 6	ditto	25	8½	8 16 0
ditto	51	22	23 8 6	ditto	12	16½	17 7 8
ditto	53	21½	22 16 0	ditto	7	5	5 0 0
ditto	51	22½	23 14 6	Glacow Slag	30	10½	10 6 0
ditto	50	22½	23 8 6	Berelaven	76	10½	10 6 0
ditto	48	22½	23 8 6	Spanish	37	2½	2 0 0
ditto	15	65½	66 17 0	ditto	18	7½	8 0 0
ditto	101	13½	14 10 0	ditto	4	19	20 1 0
ditto	93	13½	14 0 0	Holyford	48	20½	22 13 0
ditto	91	13	13 14 6	ditto	11	10½	11 6 0
ditto	68	13	13 7 0	Cwm Dyle	67	4	3 12 6
ditto	67	21½	23 6 6	ditto	6	9½	9 18 6
ditto	63	21½	23 6 6	African	11	34½	39 18 6
ditto	47	21½	23 6 6	ditto	9	33½	39 12 6
Peninsular	101	5½	5 17 0	ditto	9	33½	39 12 6
ditto	93	5½	6 13 0	Ballygahan	43	3½	3 1 0
ditto	13	4½	5 7 0	Dylife	28	8½	8 6 6
ditto	30	6½	6 15 0	Croncane	19	7½	8 6 6
Knockmahon	77	8½	9 3 6	ditto	3	35	36 12 6
ditto	76	13½	14 10 0	Tigrony	3	35	36 12 6
ditto	75	13½	14 5 6	Nant-y-Car	14	3½	3 18 0
ditto	49	10½	11 5 0	ditto	3	14½	15 6 6
Ballymurtagh	49	3½	3 6 6	Geifron	20	17½	19 3 6
ditto	45	4½	4 6 6	Burra Burra	16	23	24 13 6
ditto	42	3½	3 6 6	Glammore G.	14	7½	8 1 0
ditto	38	3½	3 6 6	Australian	7	13	14 3 0
ditto	4	55½	57 7 0	Ballymurtagh	3	55	56 12 6
Waterloo Slag	80	4½	4 0 0	—	—	—	—

Mines.	Tons.	Produce.	Price.	Mines.	Tons.	Produce.	Price.
Cobre	1030	£21,340	4 6	African	34	£1340	3 0
Peninsular	269	1632	11 0	Ballygahan	42	128	3 0
Knockmahon	308	3336	10 6	Dylife	28	283	9 0
Ballymurtagh	210	852	8 0	Croncane	22	267	11 6
Waterloo Slag	103	562	12 0	Tigrony	3	109	17 6
Lackamore	94	903	10 0	Nant-y-Car	22	151	1 6
Glacow Slag	90	22	10 0	Geifron	20	385	10 6
Berelaven	76	782	16 0	Burra Burra	16	394	16 0
Spanish	39	396	6 6	Glammore G.	14	113	14 0
Holyford	48	1216	6 0	Australian	7	99	1 0

Notices to Correspondents.

AVE MARIA COMPANY.—Sir: "Scrutiny" is informed that all movements short of a suit in equity, or winding-up, are useless. I have the opinions of Queen's counsel to bear me out. In the *Mining Journal* of last Saturday, page 211, will be found the last examination of Mr. H. Kirk, one of the directors, lately made bankrupt. Credit is taken for cash received by the sale of 570 shares in the Ave Maria Mine for 215s., and 300 South Australian Copper Mine, 360s. It is noted out, on examination, that these were *free shares*, presented to him *gratis* by the promoters. For what? Why fair to presume that each director received a *gratis* share by the promoters, for purchasing worthless property at so much more than it could possibly be worth, seeing that the vendors return some of the purchase-money in shares to the directors, who are called trustees of the shareholders, as a bribe for "selling" the latter. Verily, matters become worse every day.—H. GURDALL: April 20.

GOLD REFINERY.—Sir: Much has been written in these days of gold mining about the best mode of reduction of that valuable metal. Now, I entreat you to let this letter appear, to ask some of your well-informed correspondents what really is the method at present in use at the mines of the St. John del Rey Company for getting the gold out of their ores. I refer specifically to that vast establishment, and it is so frequently quoted as the criterion of successful results. If you will do this, you will unquestionably oblige not only myself (a very constant reader of your valuable Journal), but perhaps also many other subscribers.—A MINER: April 20.

DEVIL'S BRIDGE.—We are not in a position to state what is the largest diameter of paddle-wheels to any steamboat, but do not think there are any so large as 45 ft. The paddles of her Majesty's ship *Redoubtable*, with engines of 800-horse power, are 24 ft. diameter. Perhaps some of our readers, conversant with such matters, will favour our correspondent with a reply.

ON THE EXTENSION AND ACCESSIBILITY OF THE GREAT COAL FORMATION BENEATH THE SECONDARY STRATA OF ENGLAND.—Sir: Joseph Holdsworth, Esq., whose letter appeared in the *Mining Journal* of the 18th February last, would confer a great favour by addressing a letter to Mr. Geo. Cooke, solicitor, Northampton, who wrote a letter to Mr. Holdsworth, at Edinburgh, which was returned to Mr. Cooke by a Mr. Holdsworth, a gentleman in the army, to whom it had been delivered.—Geo. COOKE: Northampton, April 18.

"G. M." (Paddington).—It is not an uncommon occurrence that a mine is several years at work before the lode is cut. Many persons have given up a promising property, which others have reaped the benefit of, through not having the patience to wait a brief period. The committee of management are all men of high standing, and the secretary has a competent knowledge of mining; his character stands too high to lend himself to any chicanery.

"Inquirer" (Bond-street).—The beautiful gold and silver flagstone work is principally manufactured in Malta; some beautiful specimens were exhibited at the Great Exhibition in 1851. From statistical documents lately prepared, it appeared that, from 1830 to 1853, the value of the gold worked was 269,239s.; the workmanship was estimated at 61,917s.—making a total of 331,156s. The value of silver during the same period, 54,302s.; the workmanship, 14,322s.—making a total of 68,624s. During the last few years the employment of gold had materially exceeded that of silver.

"L." (Madrid).—The quotation of Wheel Creber referred to was an error; the present price is about 26s. Although they were knocked down at a sale by auction at 17s. 6d., that amount cannot be relied upon, as it is possible the shares were bought in.

The insertion of the drawings of the new process for the reduction and amalgamation of auriferous and other gold-bearing minerals, on the pestle and mortar principle, which was alluded to last week, is unavoidably postponed until our next Journal. So no slight alterations have been considered judicious, and the necessary engravings are not, therefore, sufficiently forward for this week's Journal. The delay is much to be regretted, for we have received numerous communications and queries on the subject, which would have been fully answered by the drawings. The inventor is Mr. Henry Moss, and a working model will be ready for inspection very soon at the offices of the Treadwell Mining Company, 3, Martin's-lane, Cannon-street.

Capt. John Hitchens, who has just returned from Brazil, would have been thankful if the Brucutu Gold Mining Company, in their publication of the 1st April, had replaced the words, one of the best mines in Brazil, for one of the best speculations in Brazil.

ADVERTISING MINE SHARES AT FIXED PRICES.—Sir: A correspondent, who wrote a fortnight since in allusion to parties advertising mining shares at fixed prices, pointed to the fact that, out of upwards of 40 advertising agents, only about one-sixth of that number (seven persons) continued this mode of advertising business. It may be interesting now to observe that, in your last Journal, the said number is reduced to three, and, therefore, there must be something in the system presenting an anomaly to the general course of mining business, since its abandonment appears to be voluntary.—AN OLD BROKER: City, April 20.

MOUTRIE'S SYSTEM FOR RAISING WATER.—In our next week's Journal, we shall insert a full description, with explanatory diagrams, of a novel arrangement for obtaining hydraulic power for raising water to any height with the greatest facility and economy, in connection with his improved syphons, and which the inventor states will effect a complete revolution in hydraulic statistics.

THE GOLD MINER.—Sir: I declare it is quite bewildering to be connected with mining just now. What with crusher after crusher, we are really bewildered. I do not know whether this last arrival is positively a real American, or whether it is like the reaping machine, which was found after all not genuine. What makes me think so, I am very much interested in one of the Virginia mines, and we had a machine much like it sent over several months ago, and, I expect, at work by this time. The drawing in the Supplement to your Journal of the 8th inst. puts me so much in mind of the one sent, that I should like to know which is the original one.—A CONSTANT SUBSCRIBER: Broad-street, April 18.

YORKSHIRE MINING COMPANY.—J. D. This company was formed in 1852, and consists of 10,000 shares of 1s.; however, only 5000 are in circulation, on which a call of 10s. per share has been paid; the present price of these shares is 3s. The mine is situated on Craven Moor, near Skipton, and about 35 miles from Leeds. There are about 32 veins of lead already known in the sett.

COMBINED REFINERIES AND PULVERISING FURNACES.—Sir: A few weeks ago, I made some remarks on the above subject, and of which I see from your Journal of the 1st inst. that Mr. Talbot, one of the patentees referred to, has taken notice. I do not know that Mr. Jones's plan of refinery and furnace combined has ever yet been brought into operation, nor do I state so. It is a fact, however, that many of the English and Scotch ironmasters have long been aware of the existence of such. Mr. Talbot, while admitting the priority of Mr. Jones's claim, states—"That the application of the two plans differ in toto, so much so as to constitute them two distinct and separate arrangements. At his request, I have looked again at the plans of both systems; and although I do not lay claim to his experience in the iron trade, still I can see that the only difference is, that in Mr. Jones's plan there is one refinery to two single puddling furnaces, while in Messrs. Talbot and Norris's plan there are two refineries to two single puddling furnaces—each refinery communicating with both puddling furnaces. I may be wrong, but I think that both arrangements are inadequate to a successful development of the plan in question; and bad as Mr. Jones may be, if Mr. Talbot thinks that his is the acme of perfection, I am much afraid he will find few iron manufacturers prepared to adopt it, the building and conducting of a refinery, with all its apparatus and connections, for the use of each puddling furnace.—JOURNALS: Glasgow, April 19.

BURRA BURRA MINE (SOUTH AUSTRALIA).—"Subscriber" can obtain all the information he requires by addressing a letter to Mr. Charles Hancock, solicitor, No. 20, Tokenhouse-yard, City.

WEST GRANADA (OR VERAGUAS) GOLD AND SILVER MINING COMPANY.—"A Shareholder" complains of the course adopted by the committee. At the present time the shares are of no value; but by the proposed arrangement they may become marketable, when, if our correspondent does not choose to pay the 5s., he can transfer them.

METCALFE COPPER MINE, JAMAICA.—This mine, which ran up to 187, premium in May last on 100,000 shares, was on Monday last 1/2 amount. They now report having made a discovery of silver, but it would be well for the public to take a hint from one who has been on the property, and to think of the Nova Scotia scheme, which this mine resembled up to Monday last, and be cautious how they meddle with it, or else, when too late, they will find that they have sunk their money in a company who have literally squandered away 16,000s. in 18 months. They now have a balance of about 1000s., with liabilities and a doubtful title, and with every prospect of winding up in June or July; but, in the meantime, there will be a call, by way of subscription, to work the silver discovery.—JAMAICA: Southampton, April 21.

"R. H. B." (Moorgate).—A company, with a capital of 100,000s., is already formed in Cape Town, for working copper mines in the colony. Several smaller companies are in course of formation. About 100 tons of copper ore have been received during the past year in Cape Town from the northward. The Australian mines, in 1843, only yielded 20 tons; in 1845 their produce was 17,000 tons.

THE COAL QUESTION.—We have pleasure in acknowledging the receipt of a valuable paper on Coal, from our talented correspondent, Mr. Joseph Holdsworth, in which he has endeavoured to place the matter in its true light, both as regards its domestic bearings and geological relations.

"A. X." (Thames-street).—Mr. Fairbairn's excellent work, "On the Application of Cast and Wrought-Iron for Building Purposes," noticed by us in the Journal of the 4th March last, is published by Mr. John Weale, 59, High Holborn. It contains most valuable information on the subject, and gives the results of all the most recent and important experiments on the strength of these metals. To give some idea of the size of some of the erections in which Mr. Fairbairn has employed iron, where the greatest strength is required, we may refer to the cotton mill of Messrs. John Whittaker and Brothers, near Ashton-under-Lyne. One of the most extensive structures of the kind. The main building is 300 ft. long, 60 ft. wide, and 6 stories high; it contains 24,000 square yards of flooring, 40,000 spindles, and 1800 looms. It carries, spins, and weaves into cloth about 34,000 yards, or 30 miles of calico per day. There are two steam-engines, of nominally 300-horse-power, but which can perform an actual duty equal to 800 horses. These set in motion nearly 100 spur and bevel wheels, 4800 ft. of shafting, on which are fixed 1250 drums or pulleys for driving the different machines, the whole weighing 400 tons; and this great weight is kept in motion at velocities varying from 50 to 200 revolutions per minute, for 10 hours per day throughout the year; and taking it at 316 working days, gives the enormous production of 17,654,000 yards, or 9480 miles, of calico per annum. The establishment belongs to three brothers, who have also another factory, producing together 16,000 miles of calico per annum.

"One of Five" should take some means of communicating with his co-adventurers in the Cape of Good Hope and Natal Coal and General Mining Company. It must be evident we could not publish his anonymous letter.

"Ferret" (Deptford).—It is very uncertain at what exact period cast-iron came into use; but it was certainly applied to the casting of cannon shortly after the invention of gunpowder. Savery and Newcomen partially employed it in their cylinders and pumps; and Smeaton, in 1755, applied it to new purposes, for which he was considered highly blameable; but it is stated by Tredgold those very pieces of cast-iron were working in perfect order 27 years after, and that the use of that metal became very general in the North of England in consequence of such success. The celebrated iron bridge at Colbrook Dale, erected in 1779, from castings made by Mr. Wilkinson, ironmaster, of Broseley, at the suggestion of Mr. T. F. Pritchard, architect, of Elyton Turret, Shropshire, was the first construction of the kind in England, and, perhaps, in the world. The bridge was constructed by Mr. Onions, who made some ingenious alterations on Mr. Pritchard's plan, and suggested how stone or brick arches might be constructed with cast-iron centres, always to remain permanent.

We have particularly to request that subscribers and others, in paying accounts, will send cheques or post-office orders, in preference to postage-stamps.

THE COMMERCIAL NEWSPAPER PRESS.

The publication by Government of the number of stamps issued to the respective Newspapers affords a fitting opportunity to acknowledge the very ample patronage we have received for our endeavours to make the *MINING JOURNAL* worthy of public support.

The steady progress in Circulation is the best evidence of appreciation; while the considerable increase of our Correspondents, in all parts of the world, shows that the interest in the objects to which the *MINING JOURNAL*, *RAILWAY AND COMMERCIAL GAZETTE*, is more particularly devoted is not confined to this country; and the repeated assurances of approval we receive, lead to the fair expectation that, as the same spirited and independent system of management is pursued, we may well rely on a continuous increase of our supporters and circulation.

The following list will show that the number published of the *MINING JOURNAL* surpasses that of the entire Railway press:—

Newspapers.	1851.	1852.	1853.
MINING JOURNAL	118,750	147,000	200,032
RAILWAY TIMES.....	86,530	81,000	88,300
HERAPATH'S JOURNAL.....	119,100	121,004	82,152
RAILWAY RECORD.....	28,350	25,500	19,475
RAILWAY GAZETTE.....	7,900	7,500	4,500
	241,880	235,004	194,427
MINING JOURNAL	118,750	147,000	200,032

The other Commercial Newspapers may be thus classed,—also showing the circulation of the *MINING JOURNAL* to be considerably more than all of them put together:—

Newspapers.	1851.	1852.	1853.
LONDON COMMERCIAL RECORD ..	36,300	35,000	41,250
THE REPORTER ..	24,881	12,075	32,550
JOURNAL OF COMMERCE ..	23,000	21,000	27,500
LONDON MERCANTILE JOURNAL ..	17,500	19,300	15,500
THE MERCHANT ..	23,000	18,000	14,000
	124,681	105,375	130,800
MINING JOURNAL	118,750	147,000	200,032

THE MINING JOURNAL

Railway and Commercial Gazette.

LONDON, APRIL 22, 1854.

In our last Journal we alluded to the position assumed by the operative coal miners of the North, to the resolutions in which they expressed their own opinions, and to the petition to the Legislature, in which they embodied what they felt to be their grievances and their wrongs, and in which they demand measures for their redress. We have now an opportunity of presenting this most important document to the public, which begins by this prominent and startling announcement, that their calling is "of so dangerous a nature, that about 1000 persons are killed annually in the mines of this country." That this appalling statement is not an exaggeration, clearly appears from the following analysis, made by Mr. MATHER, and published in his recent work, of the number of violent deaths in mines from the 21st Nov. 1850, to the 31st Dec. 1852, for England, Wales, and Scotland, extracted from the reports of Government Inspectors, published in March, 1853:—

	Inspected before the accident.	Violent deaths.
Staffordshire, Shropshire, Worcestershire, North Wales, Lancashire, and Cheshire	41 1/2 per cent.	757
Northumberland, Durham, and Scotland	—	313
Scotland (for a part of the time, alone)	17 1/2 per cent.	236
South Wales, Gloucestershire, Somerset, &c.	38 1/2 per cent.	362
Yorkshire, Derbyshire, Nottinghamshire, Leicestershire, and Warwickshire	63 per cent.	254
Lancashire and Cheshire (1852), North Wales for four months, Worcestershire and Shropshire for eight months, 1852	71 per cent.	221
Total of violent deaths in 2 years 40 days	46 1/2 per cent.	2143
Which is equal to 1016 deaths per annum.		
CAUSES.		
	Per centage on the whole number of deaths.	Number of deaths.
By explosions	30 per cent.	643
Falls of roof	34 7/8 per cent.	744
Accidents in shafts	21 3/32 per cent.	457
Other causes	13 8/16 per cent.	297
Total number of deaths		2143

We have on former occasions complained, and we now repeat our protest, against that legislation which confines itself to merely requiring from the inspectors a return of those actually killed, and treats as nothing the numbers of human beings who are annually maimed, mutilated, and deprived of sight in the numerous tragic catastrophes which have occurred from explosions in the coal mines of England. That such a reproach should be suffered to continue almost unnoticed, in addition to the many glaring imperfections which surround the branch of jurisprudence relating to the management of our collieries, reflects but little credit upon those Members of the Legislature, who have hitherto undertaken to frame laws for the protection of our coal mining population.

Can we be surprised, therefore, that the working colliers should at length appeal themselves to public sympathy, and should demand, as they now do, that "the number of inspectors should be increased, and that sub-inspectors should be appointed in such numbers that each pit, on the average, might be inspected more frequently than formerly?" The men, in their petition to Parliament, strongly enforce the imperfections of the present system of inspection; but when we remember that the Act did not come into operation until the 21st Nov. 1850, and while we freely admit that time must have elapsed before its machinery, even imperfect as it is, could have been put in action, or the duties of its officials understood, it is impossible to deny that results have flown from it so very beneficial, as fully to justify its revision and extension. Mr. MATTHEW DUNN, one of the Government Inspectors, in a treatise recently published at Newcastle, entitled, not very appropriately, *A History of the Steam-Jet, as applicable to the Ventilation of Coal Mines*, has furnished us with the following table, illustrative, in some degree, of our impression:—

Synopsis of Deaths from Accidents in the Counties of Durham, Northumberland, and Cumberland, since the Commencement of the Mine Inspection Act:—

From Nov. 21, 1850, to—	In shafts.	Ex- plosions.	Choke- damp.	Falls of stone.	San- dals.	Total.
June 30, 1851	13	8	1	21	29	72
Dec. 31, 1851	5	40	0	15	19	88
June 30, 1852	11	33	1	19	27	97
Dec. 31, 1852	12	7	0	26	16	59
June 30, 1853	12	7	0	28	32	79
Dec. 31, 1853	17	12	1	30	12	72
Aggregate	75	144	3	139	135	466
Average	13	18	1/2	32	23	77 1/2

The above table shows that, during the first three half-years, the deaths from explosion amounted to 1 in 3 of the aggregate; whilst, during the latter three half-years, the proportion has diminished to 1 in 9.

Mr. DUNN's pamphlet is little more than a compilation of evidence with which the public were previously well acquainted from the parliamentary reports; we regret, however, to perceive, from the small portion of it which is original, that he does not appear to be working harmoniously, either with his colleagues or the coal proprietors in his district. Unanimity is desirable in every movement, and at the present moment, when an extensive measure of colliery reform may be fairly contemplated, divisions in the councils of those who feel interested in ensuring success must be detrimental. Mr. DUNN is, of course, attached to the system of inspection which he himself administers, and feels indignant at the idea of the establishment of a board in London, constituted jointly of scientific and of practical persons, with an increase of inspectors and sub-inspectors, and new machinery to check, instruct, and govern, the inspectors, viewers, and coal owners. We, of course, cannot pretend to say whether Mr. DUNN's production, opposed as it is to such improvement, was published in anticipation of the declared opinions of the operative classes; but we confess that we concur with them in their prayer to Parliament, that all officers and managers of mines should be well grounded in the science of ventilation—that none should in future be appointed to such offices with-

out first being examined by a board, or some party appointed for that purpose, "as they feel convinced that the want of such arrangements permits the admission to such responsible situations of many persons very unfit for such offices." We may, however, for our present purposes, assume that the existing inspectors are in every respect qualified for their duties; but surely no person can pretend that six inspectors, and such is the number limited to the entire of Great Britain, are sufficient for the full and efficient discharge. That they are wholly insufficient is plain from the admissions made before the Select Committee of the House of Commons during the last session, by themselves, when some of them stated that it was impossible for them to inspect all the mines in their several districts more than once in from three to five years.

The labouring coal miners must, of all classes of men, be the most conscious of the perils they daily endure, and while they are the most competent to judge of the causes, they are perhaps the most likely to suggest adequate means of averting the frightful catastrophes to which they are so constantly subjected. Our space will not, of course, permit us to follow the petitioners through the details of the recommendations which they so earnestly express, but it is impossible to withhold general assent from the proposition, by which they entreat the Legislature "to enforce the sinking of more shafts, and at such distances from each other, that none of the air-passages, &c., shall be more than two miles in length from the downcast shaft to any of the working places." It is scarcely credible that a system of ventilation should be tolerated by Government inspectors which requires human beings, buried underground, to breathe an atmosphere derived through openings at greater distances from each other, than the limits for which the coal miners have thus so reasonably stipulated.

It is impossible to peruse this remonstrance without strong feelings of commiseration for the devoted class, to whom society is so indebted for its enjoyments, to whom England justly attributes her national importance, and whose safety and comforts have been so cruelly, and we may add, ungratefully neglected. They justly observe that, even irrespective of the sacredness of human life, the vast magnitude of the property dependent upon their efforts, and of the national, and even European interests involved in the prosperity of the coal mines of Great Britain, demand the most complete and efficient control over their management. Foremost amongst the means of securing to the coal mining classes the rights to which as men they are entitled by the laws of Nature, and as citizens by their claims upon society, are well-considered measures for enforcing a uniform and perfect system of ventilation. In the simple but expressive language of the petitioners, the chief causes of the fatalities which have occurred, and of the injuries to health, of which they complain, are the want of a sufficient quantity of pure and wholesome air, and, as the supply from the atmosphere is boundless and unlimited, they are, as they insist, entitled to require that all that science and art can effect should be applied to their relief. As proper ventilation must necessarily depend upon an efficient system of inspection, what can be expected from the present limited number of officials, when we find that although the law has conferred salaries upon them, it has withheld from them the powers of enforcing the simplest and most reasonable regulations, in which they may all concur? The labouring men feel themselves in a deficiency, and most properly call upon the Legislature to confer summary powers upon the inspectors to stop the working of dangerous places, the dangers are removed, and to impose penalties upon colliery owners who shall disobey the orders of the inspectors. It is a strong indication of educational progress to find men, who have been long proverbial for their recklessness of life, thus publicly calling upon those in authority to do their utmost to secure them from danger and from death.

The published evidence given before the parliamentary committee in the last session must satisfy every candid mind, that the results of the recent experiments in the large northern collieries of England establish that there exist means of generally ventilating coal mines, so as to prevent the atmosphere becoming fatally explosive. While we admit that calamities may still occur from sudden and unforeseen outbursts of gas, we would point with the severest inflictions the false economy which would heartily endanger the lives of men, by refusing to adopt prudent measures when deliberately advised and easily accessible. We have long known that the operative miners, who have been the principal victims, had ceased to find any confidence in, and have in effect not hesitated to express unmeasured contempt for the system of enquiring into the causes and consequences of fire-damp explosions by coroner's inquests. We have never hesitated to express our own opinions, that such tribunals constituted a deep reproach to the administration of justice, and we have now the very classes for whose satisfaction such juries are presumed to be empanelled, proclaiming that the majority of them are almost always, "if not invariably, persons directly under the employ of the owners, and, therefore, very improper persons to adjudicate on such important matters;" and they very properly insist that henceforth "jurors be chosen from persons only, who have no direct or indirect dependency upon the owners or managers of such mines." There is decisive evidence that the lives of upwards of 2000 human beings have been sacrificed within two years, to causes which we are satisfied might have been in many instances prevented, and still the verdicts, in almost every instance, have palliated culpability and exonerated guilt. We have repeatedly insisted that the ancient law of manslaughter is inapplicable to modern machinery and our extended operations, and that it is essential that any new legislative enactments for regulating our coal mines should lay down peremptory rules and regulations, not expressly define and declare that all violations of, and departures from these, should be deemed and dealt with as statutory offences, and be punishable as such.

We cannot conclude our observations without expressing the pleasure we feel at perceiving, that the operative colliers evince their gratitude to the act of the Legislature, which prevents boys under 10 years of age from being employed in coal pits. We have lately had occasion to notice a conviction for a breach of this humane and salutary law, and we have no doubt that the recommendation contained in this petition, of restricting the hours of labour in the collieries for boys under 14 years of age from 12 to 6 hours, will receive the anxious consideration of the House. If any portion of this very remarkable document entitles the framers of it to peculiar praise, it is that part which expresses their earnest anxiety to promote, extend, and perfect the education of their children. It is a novel feature in the requirements of the calumniated and despised population of our colliery districts to see them imploring Parliament, that it should be rendered compulsory on the owners of mines to build schools at their several collieries, and tendering contributions from their weekly earnings to support them. "so as to procure for their children a good and moral education." There are in the tone of this petition indications of earnest and sincere feeling; its statements are the more impressive, because they proceed from the class who have been the great sufferers, and whose recommendations are entitled to the more attention, as coming from those who are doomed to be the future victims of any feeble or imperfect attempts at legislative relief. The plain and simple language in which the petitioners have explained what they require, furnishes to the proposed conference in London a useful guide for their deliberations, and we venture to predict that they will best display their wisdom by sustaining and supporting the recommendations of the pitmen of the North.

It is somewhat satisfactory to find that, while so much doubt exists as to the future prospects of the Californian gold mining companies, which some have honestly professed to do nothing, when accusations of a grave nature are brought against others, which it is feared in isolated instances are but too true, and from quarters where certainly it should not be expected excuses are brought forward of unavoidable delays, broken down machinery, and hydrostatic experiments producing no results, but dissatisfaction at the conduct of the superintendents, distrust in the directors, and discontent among the shareholders, there is one association who, never having concealed any reports, either for good or evil, from their proprietors, have been able to come forward honestly and candidly to state their position to their constituency. The association we allude to is the *QUAKERS ROCK MARIPOSA GOLD MINING COMPANY*, a report of whose meeting was found in another column. It may be remembered that this company was the last formed during the so-called "gold mining mania," and consequently had not that opportunity of obtaining so large an amount of capital from the public as was obtained by those who have used it so worthily: like most of their competers, they had obtained a lease from Col. FREMONT, who had promised them the "best location" in California; all are aware that he could not put them in possession of this location, and that at present his rights are disputed, and awaiting the adjudication of the Supreme Court at Washington. What did the superintendents of the company then do? They did not remain idle, but immediately endeavoured to secure some place whereon they could bring the company's machinery into effective operation; and fortunately succeeded

in obtaining several mines on Maxwell's Creek, on which, notwithstanding the difficulties they had to encounter, they have in a very short period commenced actual operations; and had it not been for the heavy rains which had fallen and rendered the roads impassable, coupled with the destruction of the mail, actual results of gold would have come to hand here. We do not allude to produce by assays, which are brought forward by some companies at different periods to amuse the public, but the gold from practical working. In the report will be found what operations have been conducted at the mines, and the progress that has been made, and it is not, therefore, our intention to allude to them here. We would only remark, it would be pleasing and more satisfactory to the shareholders in several other gold mining companies we could mention, if directors, either specially or by annual report, would condescend to enter into such details. It must have given some surety to the shareholders of the confidence the directors had in the stability of the property, when two of their body, both practical men of business, advanced to the company over 6500*l.*, without appealing to the general body; this speaks volumes. It is now proposed that the 16,000 unissued shares shall be distributed *pro rata* among the present holders; this, to our thinking, is a wise step, and with present prospects, will be amply sufficient to develop all the capabilities of their rich and now prosperous property. Where mining operations are conducted fairly and honestly, the directors ought never to be cramped for want of capital; and borrowing, either of individuals or bankers, is a system which, if possible, should always be avoided, and never resorted to except in cases of extreme necessity. We have heard the complaints of several companies, that in the first instance they had not capital enough, which in a great measure has hitherto retarded their operations—this may be the case; some have, however, never thought proper to state what they have done with the money entrusted to them; while others have published general accounts, and assays of specimens which have from time to time been forwarded as samples of the huge quartz lodes. Results will shortly arrive to the Quartz Rock Company, and it will then be seen what their machinery can effect. We trust the still accredited associations will follow in their wake; while we express a hope that those who are now a stigma on the market will be swept off; they are no good to themselves, whilst, as long as they remain on the list, they do incalculable injury to those which have not forfeited the confidence of the public.

A most valuable paper, the first of a proposed series, published by order of the Lords Commissioners of Her Majesty's Treasury, has been presented to the public by ROBERT HUNT, Esq., Keeper of Mining Records in the Museum of Practical Geology and Geological Survey. In it is entitled "Statistics of the Produce of Copper, Lead, and Silver, from the Mines of the United Kingdom, with the Imports and Exports of those Metals from 1848 to 1852 inclusive." Mr. HUNT very justly observes, that "the value of any statistical returns must depend entirely on their correctness," he has thought it necessary to state the sources through which the information had been obtained, from which his tables were compiled. With respect to copper, the ticketing papers regularly published in this Journal of the sales in Cornwall and at Swansea, have been used; but as a considerable quantity of copper is not sold at public sales, the returns of sales by private contract have been obtained from the agents of the respective mines themselves, and from the copper smelters, and these have been added to the quantities sold by public sale. As to tin, the means of information would appear to be less precise. Some of the mines have, however, recently published their sales of black tin, or tin ore; the tin smelters have afforded satisfactory replies to every enquiry; the agents of the tin mines have also furnished information of their produce; and it is hoped that a regular system of returns from all the districts producing tin will shortly be arranged. The ticketing papers of the lead sales in Flintshire, although not published, have been obtained by favour of the Record Office; every lead-producing district throughout the United Kingdom had been communicated with; and each individual mine of any consequence consulted as to its produce of lead and lead ore. The system of obtaining the produce of silver has not, it would appear, as yet been sufficiently organised to secure any very exact returns; a near approximation, therefore, is all that has been attempted.

In a general summary are given the produce and value of copper and silver from English mines in the following years:—

Year.	Copper.	Value.
1848.....Tons 147,701.....	12,241 15 2 3	£50,090 17 0
1849.....146,326.....	11,543 19 0 22	51,119 0 0
1850.....155,025.....	12,353 10 2 21	51,910 16 0
1851.....150,380.....	11,907 8 2 18	52,947 8 6
1852.....165,493.....	11,776 17 2 24	57,575 14 0
For the five years.....	59,943 9 3 6	£2,083,093 14 6

From Irish, Welsh, and foreign mines, sold at Swansea:—

Year.	Copper.	Value.
1848.....Tons 48,363.....	8672 18 0 15	£362,418 11 0
1849.....48,593.....	7540 2 3 22	364,585 16 0
1850.....41,386.....	7108 8 1 11	349,288 3 6
1851.....37,241.....	6015 0 2 17	343,353 3 0
1852.....31,654.....	4901 8 3 15	264,314 16 0
For the five years.....	208,437	£2,064,580 0 6

Total of copper smelted at Swansea during the above five years:—

Year.	Copper.	Value.
English mines.....Tons 765,025.....	59,943 9 3 6	£2,083,093 14 6
Foreign, Irish, & Welsh.....208,437.....	34,238 8 3 15	2,064,580 0 6
Total.....963,462.....	94,181 8 2 21	£4,147,673 15 2

The copper ore imported in 1848 was 50,053 tons 2 cwt., and the copper only 1749 tons 13 cwt., value, £200*l.* 9*s.* 6*d.*; but in 1852, while the quantity of ore had diminished to 37,817 tons 13 cwt., the quantity of copper had increased to 6172 tons 16 cwt., value, £19,234*l.* 10*s.*

The tin produced in Great Britain, during the same five years, was 38,407 tons, or very nearly an average of 10,000 tons annually, and the tin imported during the same period, 2372 tons. The imports, which in 1848 amounted to 298 tons, had in the year 1852 increased to 2372 tons 2 cwt.

The estimated produce from the mines of the United Kingdom, for the same five years, was 450,880 tons of ore, and 308,108 tons of lead. The following tabular view of the produce of silver from lead ores will prove of great interest to our readers:—

ESTIMATE OF SILVER PRODUCED FROM THE MINES OF GREAT BRITAIN AND IRELAND IN 1852.

Locality.	Proportion of silver in each ton of lead in ounces.	Total ozs. of silver produced in each district.	Value.
Cornwall.....	35	250,000	£52,302
Devonshire.....	40	91,340	22,835
Wales.....	9	52,353	13,228
Northumberland, and Durham.....	12	101,736	25,434
Yorkshire.....	15	91,680	22,920
Staffordshire.....	15	91,680	22,920
Gloucestershire, and Herefordshire.....	7	47,138	11,754
Shropshire.....	7	47,138	11,754
Nottinghamshire.....	7	47,138	11,754
Derbyshire.....	7	47,138	11,754
Lincolnshire.....	7	47,138	11,754
Leicestershire.....	7	47,138	11,754
Northamptonshire.....	7	47,138	11,754
Bedfordshire.....	7	47,138	11,754
Hampshire.....	7	47,138	11,754
Wiltshire.....	7	47,138	11,754
Salisbury.....	7	47,138	11,754
Wiltshire.....	7	47,138	11,754
Salisbury.....	7	47,138	11,754
Total.....		818,325	205,080

It is stated that the quantity of silver produced from British lead in 1852 was about 818,325 ozs., valued at 205,080*l.* The imports of silver ore have been rapidly increasing, but cannot, it appears, as yet be correctly ascertained; it is asserted, however, that 10,000*l.* worth are sold regularly each week at Swansea, and a larger quantity at Liverpool. This table shows the distinctive qualities of the quantity of silver contained in the lead ore of the different parts of the British Isles. Thus, we have Devonshire the highest, and the portions of Wales said to be most rich in silver products, the lowest. The disproportion between the northern and southern counties of England is very striking; the quantity of silver in the lead ore of Ireland exceeds that found in the lead ore of Scotland, and that in the ore of the Isle of Man considerably exceeds both, although greatly beneath the ores of Cornwall and Devon.

The mining public are deeply indebted to Mr. HUNT for the statistics which he has thus furnished, and we presume that they will be continued and extended to the several other branches of our mineral products. Prof. EDWARD FORBES, F.R.S., in his lecture introductory of the present session at the Museum, declared that the object of the institution was mainly the illustration of the mineral constitution and products of the British Isles, and to some extent of the British colonies. Although the collections at present displayed there are mainly confined to the mineral products of the British Islands, a department is appropriated to colonial geology, where it is intended to exhibit the mineral products of each of our colonies separately, the evidences of their constitution, and the indications

of their wealth. As statistical information is now generally adopted in every branch of practical science as the most attractive, as well as the most unerring, means of conveying instruction, and as the Government has placed at the command of the highly intellectual characters to whom the administration of the Metropolitan School of Science applied to Mining and the Arts has been confided, sources of information beyond the reach of private individuals, we are justified in expressing a hope that the enquiries so worthily commenced by Mr. HUNT will not be exclusively confined to home. We can fully appreciate the difficulties which must exist, and the prejudices which must be removed before the best conceived machinery for procuring statistical information, even in this country, can be regulated or fully set in motion. The noble duke, who presides over the Colonial Department of the administration has set a glorious example in liberalising the institutions of our colonies, and merely to point his attention to the importance of the enquiries we suggest, will be sufficient to insure his active and ardent co-operation. A well-regulated system of mining statistics at home, such as Mr. HUNT has introduced, will be the surest means of enabling us to procure similar information from our several dependencies abroad; and by ascertaining from authentic tests our colonial, as well as home capabilities, we may be at all times able to regulate our supplies to meet the requirements of our demand.

The attention of the railway world is seriously directed to Mr. CARDWELL'S RAILWAY AND CANAL TRAFFIC BILL, which proposes to interfere very extensively with the powers and privileges, conferred by Act of Parliament, for the regulation of traffic by the railway companies themselves. The measure comes on for discussion in the House of Commons on the 1st of May, and the executive officers of a large majority of our railway companies are preparing themselves for a determined opposition to its outrageous enactments.

Those clauses which Mr. CARDWELL has introduced into his bill for the compulsory transmission, under the direction of the Board of Trade, of through traffic over two or more railways, and the regulation of their tolls—also under the supervision of the same tribunal—are founded upon complaints laid before the committee of the House last session, that traffic had, to the great inconvenience of the public, been delayed or forwarded over a circuitous route, or charged at unfair or unreasonable rates of toll, for the purpose of benefiting particular railway or canal companies. To remedy this, Mr. CARDWELL'S bill enacts:—

"VIII.—It shall be lawful for any company or person who shall have recovered judgment or obtained a decree against any railway company, or railway or canal company, in any action or suit in one of Her Majesty's superior courts at Westminster or Dublin, or in the Court of Session in Scotland, for breach of any duty imposed upon such company by this Act, or any Act for the time being in force relating to such company, or otherwise imposed by law upon such company, or who otherwise complains of any such company, with respect to the arrangements for the receiving, forwarding, or delivering of traffic on or from the railway or canal, or in providing for the structure of bridges or trucks, or with respect to the times of starting, stopping, or arriving of any of their trains, or with respect to any undue preference or advantage given by such company to or in favour of any particular persons or company, or any particular description of passengers or goods, with respect to the tolls, rates, or charges exacted by such company or any portion of their railway and canal, or in any other respect, to apply by petition in a summary way, either to the court in which such judgment was recovered, or to the High Court of Chancery in England or Ireland, if the railway or canal to which the complaint relates be situated in England or Ireland, for the Board of Trade, for their consideration and report."

"IX.—Upon the hearing of any such petition, if it appear to the court that the case is one which, with a view to devising a more complete remedy for the grievance complained of, or preventing the recurrence thereof, may usefully be referred to the Board of Trade, it shall be lawful for the court, if it thinks fit so to do, to direct the petitioner to apply to the Board of Trade with respect to the matters complained of, or any of them, or any questions arising thereon, on which it appears to the court that the opinion of the said board would be useful to the said court in making the proper order on such application, and to give such directions as it thinks fit as to the attendance of any other parties on the said board; and it shall be lawful for the said board, if they think fit, to inquire into and consider the matter of such application, or any question so submitted to them, and after considering what is alleged by the opposing parties, to report to the said court their opinion upon the same, and upon any arrangements as to the tolls, rates, and charges upon the railway or railways of such company or companies, which appear to the said board fitted to remedy the grievance complained of, or to be just or reasonable, under the special circumstances of the case; and it shall be lawful for the Board of Trade, upon such reference being made to them, to institute and prosecute, in such mode and by such officers as they think fit, all such enquiries as they consider necessary for enabling them to form a just opinion upon the matters referred to them; and the costs incurred by the Board of Trade in such enquiries shall, in the first instance, be paid by the petitioner, and shall, as between them and the other parties to the enquiry, be deemed to be part of the costs in the matter of such petition."

"X.—Upon the report of the Board of Trade being made under any such reference, it shall be lawful for the said court either to make such order, founded wholly or partially on the report of the said board, as the court thinks proper, or again to refer the case, and any questions arising thereon, to the Board of Trade, for their further consideration and report, and so on *toties quoties*, and after any such further report to make such order in the premises as the court thinks fit, and to direct all such acts, matters, and things to be done and performed from time to time by the company or companies complained of, as well as by the complainants, for giving full effect to any such order, and for remedying the default or mischief, or preventing the recurrence of the inconvenience complained of, as such court sees fit; and it shall be lawful for the court to make such order with respect to the further proceedings in any such action or suit as it thinks fit, and also, if it thinks fit, to order the petition to be served on any other company whose presence as a party is necessary to a complete adjudication of the matter, or to direct any other proceeding to be taken; and the company so served shall thereupon be liable to be dealt with by the court as a party to such action or suit, and it shall be lawful for the court to make such order as it thinks fit respecting the cost of any such action, suit, or petition as aforesaid."

The effect of these clauses will, undoubtedly, be the handing over to the Court of Chancery the power to reduce the tolls, rates, and charges, which the Legislature has authorised the companies to demand under their Acts, and on the faith of which their lines and works have been constructed, and this power is to be given on the complaint of any company or person, and on reports to be called for from the Board of Trade. It will also give the Court of Chancery power to make whatever arrangements and regulations it should think fit for the management of our railway traffic, and as the bill expresses it, "with respect to the times of starting, stopping, or arrival of any trains," as well as to make any orders, and direct such acts as it should think fit in respect of such matters—in fact, the bill if carried into a law in its present shape, would place in the Court of Chancery a power, not simply to administer the law on judgments obtained on complaints made by any railway company or person, but to make whatever law it should think fit for the interchange of railway traffic, and the regulation of railway tolls; and this making of the law would, it must be remembered, be virtually in the hands of a governmental department—viz., the Board of Trade.

We do not deny that the practice of railway companies, in dealing with through traffic and in their toll charges, is open to very serious objection; but we protest against this wholesale handing over to a Government department the power of interfering with the privileges which the Legislature has granted to railway companies, and on the presumed certainty of the full exercise of which, they have, under every possible discouragement, in both Houses of Parliament, expended hundreds of millions sterling.

In 1844, the railway companies consented to give, and have given, increased facilities for the conveyance of goods and passengers, on a pledge from the then existing Government, that the grievances of which they justly complained, especially in reference to parish rates, should have full consideration and redress. The pledge given to them has not been redeemed, and now the Government, instead of bringing forward a comprehensive measure for correcting the evils which railway legislation and the law of rating have inflicted upon companies—instead of providing for the cheap construction of railways, and the consequent cheap transit of goods and passengers, and of bringing under the consideration and decision of a properly constituted and independent tribunal, the subject matter of complaints of persons or companies against each other, of interference with through traffic, unjust and vexatious delay, or high rates of toll—we say, instead of doing this, which would have been satisfactory to all parties, the Government, unmindful of the pledge given in 1844, bring forward a measure that leaves untouched the grievances of railway companies, and practically hands over to the Board of Trade the regulation of tolls, rates, and charges, and the times of starting and stopping railway trains. We predict that Mr. CARDWELL will not carry his bill, and we believe that he has not the slightest chance of doing so.

At the Wharfedale meeting of the Brighton Company, on Thursday, the shareholders were loud in their denunciations of this attempt to interfere with the privileges of our railway companies. The directors had introduced into the bill clauses in accordance with Mr. CARDWELL'S measure, for the compulsory transmission of through traffic, and the regulation of tolls, and an adjournment of the meeting was prevented purely on the statement of the chairman, that the omission of the clauses might endanger the success of the bill, and that as the works contemplated by it were of immediate necessity, they would, in that event, have to be paid for out of revenue; and that, therefore, the shareholders might be deprived of their dividend. The meeting, however, would not permit the bill to be approved of, without passing the following condemnatory resolution:—"That this meeting, although assenting to the bill, views the forwarding

clauses with great apprehension, and is of opinion that the subject matter of these clauses ought to be dealt with, if at all, by general legislation, and not forced on the promoters of private bills." It is right to observe that this resolution was suggested and written by the chairman himself, and that if the meeting had given expression to their feelings in a resolution of their own, the bill would have been condemned altogether. We shall return to this subject in our next Journal.

The DEPOSIT AND GENERAL LIFE ASSURANCE COMPANY have convened a meeting for the 27th inst., for the purpose of confirming or dissenting from certain resolutions passed at an extraordinary general meeting, held on the 3d inst. The careful and very able manner in which this undertaking has been conducted has been fully confirmed, not only by the unanimous approval of the shareholders, but by the almost unparalleled success which has attended the united and unwearied services of the directors, the energetic exertions of the officials, and the perseverance and industry on the part of the local agents. That the proposition of the directors to increase the capital to 200,000*l.*, by the creation and sale of new shares of 5*l.* each, will be cheerfully responded to there can be no question; indeed, so completely alive do the policy-holders appear to be to the value and importance of the suggestion of the board, that it requires neither argument nor recommendation to satisfy them that their financial position will be materially improved, and if possible more firmly secured. The proposed additional capital will enable the management to develop more fully the loan operations; which, even upon the limited scale they have already been extended, have created a large increase of returns. If this portion of the company's operations be effected, this society cannot fail to become highly remunerative, as well as of the utmost utility to the trading community. The terms and conditions upon which the new shares are proposed to be issued are as liberal as it was well possible to make them, and many will, no doubt, be anxious to avail themselves of the opportunity which is now offered of increasing their interest in so valuable an undertaking. The proposed increase of capital cannot fail to ensure a more than corresponding increase of business.

THE IRON AND METAL TRADES OF SOUTH STAFFORDSHIRE.

[FROM OUR CORRESPONDENT IN BIRMINGHAM.]

APRIL 20.—The last of the quarterly meetings of the ironmasters was held at Dudley, on Saturday evening last, when the prices which I have already forwarded you were fully confirmed. There was a large attendance of the trade, and many buyers at the hotel, and a considerable amount of business was transacted; since then there has been comparatively very little done, in consequence of the Easter holidays. Few of the men throughout the district have made their appearance at the works up to the present time, and there is nothing to be heard of for miles round except merry-making railway trips. The order sheets, however, continue to arrive at the works, and next week will find them all in full operation again. The coal-pits have, also, been deserted; and it is to be regretted that no small amount of excessive indulgence and irregularity has been observable amongst the colliers. The schoolmaster, it is true, has done much amongst them, but very much yet remains to be done before they can be made to appreciate the blessings of that abundance of work and wages they have so long enjoyed, and be prevailed upon to save in place of squandering their earnings. During the absence of the men from the works the bricklayers and carpenters have been altering and repairing, as is their custom at holiday times; and never, perhaps, was there so much of this description of work to be done as at the present time.

In the Copper Trade there has been very little business transacted during the past week; stocks are rather heavy than otherwise, and there is certainly no tendency to advance; on the contrary, purchases can be made at a small reduction upon the last quotations; and the same will apply to the Tin Trade. This is no doubt owing to the fact of the manufacturers confining themselves to actual orders, and not making for stock in the general brass and hardware trades. Indeed, it is not to be expected that the manufacturers would make for stock under the altered circumstances of banking accommodation and high rate of interest. The demand, therefore, for all description of metals has very considerably subsided, and not likely to return until some favourable result arrives from the seat of war, to restore confidence, and loosen the hold of the money-lenders.

In the Gun Trade there is increased activity. The Government have issued some fresh orders, and these, taken in connection with a brisk demand for Turkey, will afford ample employment for some time to come.

At the works engaged in manufacturing boilers, tubing, and all kinds of marine stores, they are exceedingly busy, and the orders on the books are far greater than can be conveniently executed. At the Soho Works, and those of Fox, Henderson, and Co., the utmost activity prevails in all the above branches.

The fancy trades are dull, particularly the jewellery business, the prosperity of which is generally taken as a sound index of the general trade of the country. We have been almost entirely deprived of the Lancashire market, owing to the prolonged and truly unfortunate difference between the masters and men in that district; and had it not been for the Australian market, many of our manufacturers would have felt severely the loss of this portion of our home trade. Prices, however, are still maintained, and without any probability of an immoderate reduction.

The Share Market during the week has been deserted, and nearly all speculation in public securities has been suspended *pro tem*.

IRON AND COAL TRADES OF YORKSHIRE AND DERBYSHIRE.

[FROM OUR CORRESPONDENT IN DONCASTER.]

APRIL 20.—The demand for iron continues unaffected by the declaration of war, and as the consumption is chiefly for American, Indian, and European states, which will probably not be checked or influenced by the war, there is every reasonable ground for expecting that present prices will be maintained, if not advanced. The enhanced value of pigs is greater than upon bars, so that the pig-makers, who recently complained of not having had an adequate advance, are now reaping a rich harvest. Pigs are realising from 4*l.* 15*s.* to 5*l.* 10*s.* per ton, according to brand; and the demand for pigs, as well as some other descriptions of iron, is considerably in excess of the supply. A few weeks ago we alluded to the increase of ironworks in Yorkshire, and the extension of some of those already in existence in the neighbouring county of Derby. It affords us much satisfaction, therefore, to notice this week the opening of the Cleveland Iron-works, on Thursday last. The two new furnaces, which are situated at the East Junction, on the Middlesborough and Redcar Railway, have been erected by Thomas Light Elwon, Esq. The two furnaces were "tapped" on the day just alluded to, amid great rejoicings; and at one o'clock the molten metal was run from the furnaces for the first time, amid the firing of cannon, the waving of flags, and the inspiring strains of the band of the North York regiment of Rifles, in which Mr. Elwon holds a commission. The leading and influential inhabitants of Stockton and Middlesborough, and the gentry of Cleveland, were present, the majority of whom partook of a splendid luncheon, which was provided in the engine-shed attached to Messrs. Bolckow and Vaughan's works at Easton, which adjoin those of Mr. Elwon, who occupied the chair, and was supported right and left by W. Skinner, Esq., mayor of Stockton, H. W. F. Bolckow, Esq., mayor of Middlesborough, G. J. Scurlfield, Esq., W. R. J. Hopkins, Esq., J. Vaughan, Esq., &c. The usual loyal and patriotic toasts were given and responded to, and success to the Cleveland Iron-works was drunk, and heartily responded to. At 5 o'clock in the evening, the workmen were treated to an excellent supper, after which they participated largely in the pleasures of the dance.

The Steel Trade during the week has been as brisk as usual; manufacturers are unable to keep pace with the demand, which is increasing. The Midland Mining Company, whose adventures were briefly noticed in our last, have just commenced to work another lead mine at Ashover, in Derbyshire, which had been abandoned many years ago, in consequence of the mine being inundated with water. The directors have created a large number of shares, which are all taken up, or nearly so, by the proprietors of the other lead mine, the property of the same company—they having had the preference to other proprietors.

The Coal Trade is not quite so active as it was a short time ago, and prices have declined, in consequence of increased production and diminished consumption, consequent upon the season of the year and the opening of several new collieries. There is every reason to believe that a further reduction in price will take place shortly, as it is well known that the stocks on the banks of several of our large collieries are inconveniently large.

COATING IRON WITH GLASS.

Having received numerous communications from parties interested in the subject of enamelling iron, we now give the following particulars of one process, taken from the specification of a patent, secured some time since by Mr. F. Walton, a practical tin-plate worker of Wolverhampton. In the *Mining Journal* of June 8th, 1856, we inserted a general description of another method of manipulation, as practiced by Messrs. Selby and Johns, of Birmingham; and, as the two processes materially differ, the information will, no doubt, prove interesting. The articles to be treated are first subjected to a full red heat in an annealing furnace for half an hour, allowed to cool slowly, and their surfaces scoured clean, bright, and freed from all grease, when they are ready for the first coat of enamel, which is composed of six parts, by weight, of flint glass, three of borax, one of red lead, and one of oxide of tin. These are pounded together in a mortar, and then kept at a strong red heat in a reverberatory furnace for three or four hours, during which period they are frequently stirred, to effectually mix them, and expel all volatile matter. When partially vitrified, the whole is withdrawn in a paste state, dropped into cold water, and is then easily ground to powder, which is called "frit." With one part of frit is mixed two of calcined bone-dust, which is ground in a porcelain mill until perfectly fine and soft, and of the consistence of thick cream, when it should be strained through a fine cloth. The article to be coated is now held over the vessel containing the semi-liquid, and a suitable quantity poured over it with a spoon; but some articles may be dipped in the enamel. When drained, and sufficiently dry as no longer to run, they are placed on a stand of three points of earthenware, and placed in a japaner's stove, kept at a heat of 180°, until all moisture is expelled; defective places may be filled up with a brush. When perfectly dry, they are placed in the vitrifying furnace at a glowing red heat; and when the coating is partially fused, and it adheres firmly to the metal, they are withdrawn, and laid on a flat iron bench to cool. When cooled, they are wetted with a sponge, a second coating given, dried, and fired as before—a different composition being used. This consists of 32 parts, by weight, of calcined bone, 16 of China clay, 14 of Cornish stone, and 8 parts of potash dissolved in water, mixed, baked, and ground to powder. To 5 parts of this powder is added 16 parts of flint glass, 5 of calcined bone, and 3 parts of ground calcined flint. In this second firing the articles must be kept in the furnace until the second coat is thoroughly incorporated with the first.

The articles having been twice coated, are again treated with another composition, consisting of 4 parts, by weight, of felspar in powder, 4 of white sand, 4 of carbonate of potash, 6 of borax, 1 of oxide of tin, 1 of nitre, and 1 of whiting; these are fritted, ground, and made into a creamy paste, as before described. In firing the articles for the third time, they must be subject to such a heat as thoroughly to vitrify the glass, to spread over and become entirely incorporated with it, so as completely to glaze the surface. A fourth coat may be given, if thought desirable, to give a full and rich enamel covering. By these several processes, and by varying the materials of the compositions, iron articles may be made to represent the best china, either pure white, or ornamented in colours and gold, or merely covered with a pure transparent coating. In the first attempt to enamel iron, arsenic formed an ingredient in the formation of the enamel, but was found highly injurious; this can now be dispensed with, and every description of iron articles for domestic use which will stand any degree of temperature, or for architectural and ornamental employment, may now be obtained at a moderate cost.

COPPER MINES OF NEW SOUTH WALES.—It appears that considerable systematic attempts are now being made to test the quantity and richness of those copper ores in New South Wales which have long been known to exist, the indications, also, being highly promising. At the Sumner Hill Mine, about 25 miles from Bathurst, copper ore was discovered by shepherd about five years since, when several persons subscribed towards the expense of making experiments, the results of which was, that they were satisfied of the existence of ore in large quantities, yielding from 18 to 25 per cent. for copper. A company was then formed, called the Bathurst Copper Mining Company, under lease for 42 years, at a small rental and royalty. Four shafts have been sunk on three distinct lodes from 100 to 300 feet, and numerous levels have been driven, from which a quantity of rich ore has been taken. They have a new 20-horse power Cornish engine, several large heaps of ore are calcined ready for smelting, one furnace is already erected, and there are upwards of 2000 tons of wood on the ground for fuel. All the necessary erections and machinery are on the mine, and great hopes are entertained of a successful result. The Ophir Mine is situated about 22 miles west of Bathurst; copper having been discovered, it was purchased from the Government, and transferred to the Ophir Mining Company. The operations only commenced last year, yet considerable progress has been made. Numerous necessary buildings have been erected, six shafts have been sunk, and several levels driven. Three lodes have been discovered, with surface indications of others. A large quantity of ore has already been raised, with considerable reserves in sight; the country is a soft kindly killas, and it is expected this will prove an important and profitable property. As gold seeking is now becoming better understood, and a more settled occupation, and as men find they must work steadily and perseveringly to succeed, like any other employment, labour will be more easily obtained by the copper mining interest.

LAKE SUPERIOR MINES.—From an authorised return of the mines in the district, including a statement of copper, iron, and silver ore received at Saut Sainte Marie during the past year, we learn that 1351 tons 2 cwt. 3 qrs. 14 lbs. was taken from the Cliff Mine alone, while the average yield was only about 30 tons. Of 34 Lake Superior copper mines, we find that the proprietorship average in shares from \$6000 to \$100,000, some not yet disposed of by the company, making on the whole \$220,000, and the amount of paid-up capital averages about 12 per cent. of that sum. The value of the Boston and Pittsburgh Mine is estimated at by far the highest figure—\$870,000,—while the lowest is the Iron City Mine, stated to be worth \$30,000. The whole amount paid on the 34 mines of the Lake Superior copper region, enumerated above, is equal to \$2,120,000. The total value of these mines is equal to \$7,033,500. The amount of copper received from all the mines, up to the opening of navigation in 1854, is estimated at 14,000 tons, equal in value to \$4,620,000. The product of the Lake Superior district for the year 1854 will exceed 3600 tons, which at the present price of copper, will amount to nearly \$2,000,000, or one-third as much as the product of all the English mines. An assay of a quantity of ore from the Lake Superior Silver Mine, recently made in London, shows the results set forth in the accompanying extract from a letter received by a gentleman in Detroit. The ore assayed gives a value of about \$800 in silver and copper:—"The two casks of copper and silver ore have been crushed and assayed for Mr. A. J. Smith, secretary of the Lake Superior Silver Mining Company, to whom the ore belongs, and it contains 552 ozs. of fine silver to the ton of 20 cwts. of ore, and 16½ per cent. of pure copper."

[It will be observed in our advertising columns, that Mr. J. A. Calderwell is making a second tour through the mineral regions bordering on Lake Superior, for the purpose of inspecting the mines there, and of deciding such questions relative to the character of the mineral resources of the Canadian shore as may be presented. His recent alteration in the conditions for land purchases offering much temptation to British capitalists. The opening of a ship canal connecting Lake Superior with the lower lakes and the ocean, the rapid increase of population on the Canadian shore, and the consequent necessity of securing a ready market for the products of every inch of land bordering that inland sea, whether it be rich in minerals adapted for building, agricultural, or other purposes.]

LARGE MACHINE FOR BORING CYLINDERS.—A magnificent boring tool has just been completed by Messrs. G. and A. Harvey, Albion Works, Glasgow, for one of Mr. Robert Napier's engine-shops. The frame, which is composed of a highly ornamental cast-iron, is 15 ft. high and 14 ft. wide, while the summit of the machinery reaches an elevation of 25 ft., and the whole weighs 30 tons. The wheels, pistons, and shafts, which give motion to the boring tool, are supported on cast-iron beams of great size and strength. It can be set to work at all speeds, from one revolution in two and a half minutes to 16 revolutions in one minute, and is capable of boring cylinders up to 7 ft. diameter, and a hole in solid iron 10 in. diameter in 10 minutes. The speed of the tool can be regulated to take any size, from 1/40th to 1/16 in. per revolution, and can work to a depth of 7 ft. 8 in. It is constructed for boring and facing machine tools, cross-heads, connecting rods, cylinders, air-pumps, &c., principally for marine engines.

GUTHA PERCHA COMPANY.—We have, during the week, paid a brief visit to the works of this company in Wharf-road, City-road, which are now being erected in place of those completely destroyed by fire about twelve months since. We are happy to find that, by the energetic measures taken by the directors, aided by the officials, a very slight interference with the company's business has taken place and the present erections, considering their extent and importance, have, so far, been carried on with amazing rapidity. One building, which the former works occupied, and which, for example, was used for the finishing of the work, is now being erected on the site of the original building. The whole of the open ground formerly in front of the works is now being covered with a range of fire-proof buildings of the most substantial construction, and in the course of a few weeks we hope to be able to lay before our readers a detailed description of these works, which, when completed, will present a fine example of modern engineering in London.

sent one of the most imposing, important, and scientific establishments

BRITISH PROVIDENT FIRE AND LIFE INSURANCE COMPANY

At the annual general meeting, at the offices, 4, Chatham-place, Blackfriars, Capt. MALKIN in the chair.

The report set forth that, notwithstanding the many difficulties which surrounded the company at the time of their last meeting, and which had subsequently been continued and increasing, the company had been in a position to state that they had continued to receive the assistance of the directors and officers, and they had succeeded in placing the British Provident upon the list of first-class stable offices of the day: 438 policies had been accepted during the past year, effecting an increase of the amount of 70,000l. in the life department. The large sum of 47,370l. of the capital of the company had been subscribed for, and nearly 800 agents had been appointed in the principal towns and cities of the United Kingdom. The report concluded with declaring a dividend of 5 per cent. upon the paid-up capital for the past year. The motion for adopting the report was unanimously agreed to, and the usual vote of thanks passed to the chairman and officers of the company.

MINING LAW, AND THE COST-BOOK SYSTEM.

COURTIS V. JOHNSON AGAIN.—This cause was tried at the last Devon Assizes: the question was, whether the defendant was a partner at the time when the plaintiff supplied certain materials to the West Down Mine.

At a similar trial, in 1853, with another plaintiff (Northey v. Johnson), before Mr. Justice Erie, the defendant stated he received an offer, dated 26th July, 1849, for his shares from Mr. Diamond; he first went to the mine, and on the 6th August called on Mr. Diamond, and told him he accepted his offer. He did not give a transfer, as he took none when he had his shares; he threw them up by the same tenor by which he held them, and since then had not been a partner. A new trial was applied for, on misdirection. The Court of Queen's Bench decided that, if a man verbally gave notice to his co-partners that he would no longer be a shareholder, after that they had no right to pledge his credit, and refused the rule. At the last summer Devon Assizes, another action (COURTIS v. JOHNSON) was tried, before the late Mr. Justice Talfourd, when the jury decided that there had been no verbal transfer, and gave a verdict for the plaintiff. Subsequently, a new trial was granted, on the ground that the judge had not put, with sufficient clearness to the jury, whether the defendant had not received the shares for the call due, which call Mr. Diamond paid. He signed an agreement to take shares, but received no transfer, and therefore did not give one. Mr. Erie proved that in 1849, when there was a trial of strength, Mr. Diamond told him he had got Mr. Johnson's shares. Mr. Peet proved that he bought 1200 shares, and afterwards Mr. Diamond, through an agent, offered a greater number than remained in the mine, exclusive of Mr. Johnson's. In support of the plaintiff's claim, Mr. Diamond stated that he offered 2s. 6d. per share beyond the call due, upon which the defendant said he was welcome to them if he would pay the call. Mr. Diamond said, very well; and asked for a transfer. Mr. Johnson said he could not give a transfer, as the shares were still under offer to Mr. Thomas, and he might claim them; but added:—"If you will pay the call for me, at another time I will give you a transfer; if you can buy Mr. Thomas out, I will repay you the call, and go on with my share, as I have a good opinion of the mine." Mr. Justice Erie, in summing up, told the jury a written transfer was not necessary. If they believed Mr. Diamond's story, which seemed rather unimpeachable, and at variance with the defendant's letters to Mr. Thomas, in all of which he expressed a desire to withdraw, they would find for the plaintiff; and if they believed Mr. Johnson, they would find for the defendant.

In the Court of Exchequer, yesterday (before the Chief Baron, Barons Parke, Platt, and Martin), a rule nisi for a new trial was granted, on the ground of misdirection by the judge, in telling the jury a transfer need not be in writing; and also, in refusing to ask the jury if the shares had been transferred according to local usage.

DISCOVERY OF PLUMBAGO IN CORNWALL.—Hitherto, we believe, this valuable mineral, commonly called "black-lead," has been found only in Cumberland, where it has been known for ages. A valuable discovery has, however, it appears, now been made at Wheal Trevellick, near Grampound, in Cornwall, where in prospecting a field several specimens were picked up. A license was immediately obtained from the Duchy, mining operations commenced, and at only 6 fathoms depth the most promising indications of the existence of the only large lump of plumbago of this purest character were found, but other valuable minerals; and we shall see with much interest for further information.

RED DRAGON MINE.—Mr. W. H. Smith, the purser, has returned to town after an absence of three weeks, during which he has been engaged in superintending the construction of the wheel-pit and buildings, and the formation of the tunnel for the water-course. The whole of the work is progressing favourably, and will be completed about the 15th of next month, and ready for the reception of the gold machine, which will be at once set to work, when the patience and enterprise of the adventurers will, it is fully expected, be amply rewarded. The great feature of this successful mining set is the inexhaustible quantity of its gossan and quartz, which might be worked at the rate of 100 tons daily for the remaining term of the lease—that is to say, for 20 years to come. The gossan, and most unkindly-looking of the gossan taken from the surface on the depth of the depth of the depth of 6 inches, produces gold to the extent of 1 ounce per ton; whilst the gossan taken from the depth of 3 to 6 feet from the surface, on the breast of the hill, yields gold to the extent of 2½ ounces to the ton. These facts have been demonstrated to the satisfaction of those parties who are the most deeply interested in the success of the undertaking; and though it has not been deemed expedient by the directors longer to delay the erection of one of Perkes's machines on the property, they intend to examine into and test the merits of each one of the inventions now before the public for the extraction of gold from auriferous gossan and quartz, before the operations are fully carried out, the intended extensive plans in view. In the meantime, it is confidently expected that the produce of the machine about to be erected will pay all the working expenses of the mine, and leave a moderate dividend for the capital invested, until the final arrangements are completed, and the vast consumption so devoutly wished for is achieved.

ARENDALL COPPER MINE (NEAR ASHBURTON).—This mine is now attracting considerable attention, not only from its geological position, and from the gossan and ores which have been raised having been found to bear a singular resemblance to the early indications of the Devon Great Consols, but from a discovery of native copper in the earliest cross-cut making towards the great lode from the 25th level. Capt. Thomas, in his late report, says, "We have cut through the capel, and have much larger pieces of native copper now in the light kilns; so I think all the cross-cut will pay for dressing. We save clear some pounds in a core of 5 hours, and daily carried out, and which looks very much like the native copper of the Great Consols. The ground in the Victoria engine-shaft is favourable for sinking a cross-cut of a light kiln. In the 25th level, cross-cut, driving north to the lode, the ground is very favourable for the lode. The ground in the adit is now driven 128 fathoms, and within a short distance of the lode at another part of the set, looking favourable for the lode. We have floors of the same nature as sent in the box of native copper, underlying north towards the lode. The temperature of the water in the cross-cut is 1 degree higher than in the adit."

ANGARRACK CONSOLS COPPER AND TIN MINES.—A new company has been formed for working these mines, which are situated in the parishes of Pullick and Gwinnar. The metalliferous character of the district is proved to be one of the most valuable in Cornwall. Alfred Consols and Great Wheal Alfred are on the west, Great Herland on the south, and Trevaun, formerly one of the most important mines in the district of Cornwall, on the east, all within a mile of Angarrack Consols, and each having yielded immense mineral wealth; whilst Alfine, the most productive mine in the district, is only a few miles distant. The length of the sets on the course of the lode is more than 450 fms., and the width 300 fms., through which 11 east and west, and two counter lodes, pass, besides numerous branches intersected in the adit level. It is now proposed to divide the company into 20,000 shares, of 10s. each; and not some guarantee of success to the adventurers to know that Mr. W. Charles, manager and purser, and Capt. J. Barratt the managing agent. Capt. James Barratt, reporting on the mine, says—"The set is upwards of 450 fms. long and 300 fms. broad, and is in one of the best mining districts in Cornwall. It has 13 large lodes already discovered, and in the adit, which produce copper, tin, lead, silver, and gold, but the mine has only been explored to a very shallow depth. Mellinowth copper lode has produced, a little to the west of the shaft, in former workings, 6000l. worth of copper ore, raised within two years, and within 25 fms. from surface. It is a counter lode, and will, without doubt, prove very productive and remunerative at a greater depth. There is also a promising tin lode, and three large cross-coal-roads, the most one is the same which yielded so much silver in Great Herland Mine, which is immediately to the south of the Angarrack. There is a great piece of ground employed in the north part of this set, where several large lodes are known to run."

THE BERDAN MACHINE COMPANY.—As will be seen by the advertisement in another column, the company have bought the foreign patents of Mr. Berdan, in addition to the English, thereby rendering necessary a virtual re-organization of the arrangements. No allotment of shares is likely to take place, although they were at a premium of 1½ to 2. The chief holders of the stock now constitute the directors, some of the former directors retiring.

DISCOVERY OF GOLD AND SILVER IN THE HIGH PEAK OF DERBYSHIRE.—About three years ago, a few persons in the neighbourhood of Chatsworth agreed to commence mining operations on a very extensive scale, in the mineral liberties of Chatsworth, Haasop, and Ashford. Uniform and almost unparalleled success attended their efforts, they resolved still further to extend their operations, and with that view crossed the River Wye, in order to try their fortunes on the banks of the Lathkill, where, at the foot of an immensely elevated mountain range, they commenced driving a day level, in splendid maiden ground, in order to cross-cut the elevated Ashport and Margate veins. Before their object was accomplished, they came to a mine, which, on being carefully assayed in Sheffield and London, proves to be the purest native silver; and the proprietors have since discovered, by Berdan's machine, that the mine also contains a portion of the finest gold. The most remarkable feature in this affair remains to be told. When this discovery was being made, a few of the leading tradespeople of Chesterfield, like their neighbours in Sheffield, resolved on diversifying their vocations, by having a little mining interest, and, consequently, made application to Mr. Burgoyne, of Rye, and to Mr. J. Brown, of Chatsworth, to purchase the right of this set, and were told they could be accommodated with the same, at a mere nominal price. However, in consequence of the startling discovery was made before the minds of the good people of Chesterfield were made up, and the old adage was again fulfilled—that "a night is as fatal as a mile." We hope our neighbours will have more luck next time. Our readers shall shortly be favoured with statistics.—Derbyshire Times.

HOLLOWAY'S PILLS, FOR THE CURE OF DYSPEPSIA, BILE, AND LIVER AND KIDNEY COMPLAINTS.—This inappreciable medicine is so well known throughout the world, that it is not necessary to say more of it than that it is a powerful remedy for the cure of bilious and liver complaints, disorders of the stomach, dropsy, and debilitated constitutions. In these diseases the beneficial effects of this admirable remedy are so permanent that the whole system is renovated, the organs of digestion strengthened, and a free respiration promoted; therefore sufferers should be careful to procure it, and to ensure a safe and certain cure.—Sold by all vendors of medicine, and at Prof. Holloway's establishment, 244, Strand.

WEEKLY LIST OF NEW PATENTS.

APPLICATIONS FOR PATENTS, AND PROTECTION ALLOWED.

A. E. Belford: Turntables.—P. M. Parsons: Permanent way of railways.—H. A. Arberhan: Galvanic batteries.—W. Hahner: Muratic and sulphuric acids.—Al. Alkaline sulphites.—W. Johnson: Galvanic, electric, and magnetic apparatus.—W. Tucker and W. Adams: Preventing smoke.—H. Cowley: Bricks.—J. Sandys: Electric telegraph instruments.—T. R. Crumpton: Crushing, &c., ores.—W. Simpson: Railway signals.—E. C. Willis: Sheet gutta percha.—J. Inshaw, and J. Parker: Suppressing smoke and increasing draught.—G. Brockelbank: Metals from ores.

WEEKLY LIST OF PATENTS SEALED.

Sir J. S. Little, South-street, Finsbury.—Improvements in machinery for breaking stones and other hard substances.
J. H. Johnson, Lincoln's Inn-fields.—Improvements in the manufacture of iron.
J. Chesterman, Sheffield.—Improvements in hardening and tempering steel, and in grinding, glazing, buffing, and brushing steel and other metallic articles.
W. Rastler, Royal Military Academy, Woolwich.—Improvements in the construction and arrangement of the buffing apparatus of railway carriages, and the mode of applying the buffer and draw-springs to such carriages.
B. Fullwood, Abbey-street, Bermondsey.—Improvements in the manufacture of cast-iron and other ships' bottoms, and other surfaces.
J. Stevens, Darlington-works, Southwark Bridge-road.—Improvements in apparatus for driving railway signals.
C. Nicholson, New Broad-street.—Apparatus for avoiding collisions of trains on a gauge, and washing quarts or matters containing gold.
J. Rives, Hotel Motay, Paris.—Improvements in railways and railway carriages.
W. Morrison, Bowling, Dumbarton.—Improvements in railway wheels.
A. D. Noel, Chancery-lane.—Improvements in the manufacture of zinc white.
J. Scott, Shrewbury.—Improved apparatus for shifting carriages, waggons, engines, and other vehicles on railways and tramways.
The Rev. W. R. Bowditch, Wakefield.—Improvements in economising fuel, and in the more economical production of light and heat.

Transactions on the Stock Exchange.

Shares.	Paid.	Last Price.	Business Done.
1000000 Agva Fria	1	1 1/2	2
30000 Anglo-Australian Gold	1	1 1/2	—
100000 Anglo-Californian	1	1 1/2	—
10000 Australian	1	1 1/2	—
60000 Australian Cordillera	1	1 1/2	—
100000 Australian Freehold	1	1 1/2	—
50000 Ave Maria	1	1 1/2	—
200000 British Australian Gold	1	1 1/2	—
210000 Carsons Creek	1	1 1/2	—
100000 English and Australian Copper	1	1 1/2	—
25000 Fortuna	1	1 1/2	—
100000 Great Nugget Vein	1	1 1/2	—
60000 Liberty	1	1 1/2	—
2000 Mexican and South American	1	1 1/2	—
60000 New Granada	1	1 1/2	—
200000 Nouveau Monde	1	1 1/2	—
100000 Port Philip	1	1 1/2	—
100000 Pontigault Silver-lead	20	15	—
60000 Quartz Reef	1	1 1/2	—
50000 South Australian	1	1 1/2	—
70000 Waller	1	1 1/2	—
100000 West Mariposa	1	1 1/2	—
100000 Yuba	1	1 1/2	—

LONDON AND NORTH-WESTERN RAILWAY COMPANY.

OLDHAM BRANCH CONTRACT.—The directors are prepared to receive TENDERS for the EXECUTION OF THE WORKS OF THE ABOVE CONTRACT, which includes the CONSTRUCTION OF A TUNNEL (1200 yards in length), and all requisite excavations, embankments, bridges, culverts, retaining walls, fencing, approach roads. The sleepers, ballasting, and laying of the permanent way, and all contingencies of every description. The rails and chairs will be furnished by the company.

Drawings and specifications are now ready for inspection, at the office of the engineer, 13, Duke-street, Westminster, where printed forms of tender may be obtained, and any requisite explanations to the intended works will be given. Tenders, marked "Tenders for Works, Oldham Branch," addressed to the secretary (under sealed covers), must be delivered at the company's offices, London-road Station, Manchester, not later than Ten o'clock A.M. on the 15th day of May. The directors do not bind themselves to accept the lowest tender.

By order, CHAS. E. STEWART, Sec.

LANCASHIRE AND YORKSHIRE RAILWAY.—LOCOMOTIVE

ENGINEER.—ON SALE, SEVERAL LOCOMOTIVE ENGINES, formerly in use on the Lancashire and Yorkshire Railway; cylinders varying from 11 in. to 14 in., stroke 18 in., diameter of driving wheels from 4 ft. 8 in. to 5 ft. 6 in. A portion of the engines have four wheels, but the majority have six wheels. The whole are in good condition, and will be delivered in working order.—Permission to view, and further particulars, may be obtained by applying to the Company's Superintendent of the Locomotive Workshops, Miles Platting, Manchester.

Manchester, March 29, 1854. JOHN DUNSTAN, Jun., Sec.

OLD IRON MATERIALS FOR SALE.—SOUTH EASTERN

RAILWAY.—TO BE SOLD, BY PRIVATE CONTRACT, in Lots, about 350 tons of OLD IRON MATERIALS, consisting of wrought wheels and axles, cast wheels and wrought axles, wrought scrap iron, old springs, and spring steel, iron wire rope, and sundry old metal. To be seen, and particulars had at the company's works, Ashford, on application to Mr. R. C. MANUEL.—Tenders to be addressed to the secretary, London-bridge Terminus, on or before Wednesday, the 3d of May.

G. S. HERBERT, Sec.

South Eastern Railway Offices, London Terminus, April 17, 1854.

ANTWERP AND ROTTERDAM RAILWAY.—The Directors

beg to inform the shareholders, that the FIRST ANNUAL GENERAL MEETING of this company will be HELD at the offices in Brussels, No. 70, Rue Royale, on Thursday, 4th day of May, at Twelve o'clock precisely.

The Directors take this opportunity to announce that the line from Antwerp to Rozendaal, with a service to Breda and thence to Rotterdam, will be opened on Monday, the 15th day of May next.

By order of the Board, GEORGE F. SMITH, Sec.

CROSSKILL'S PATENT PORTABLE RAILWAY SUPPLIED

AND LAID DOWN at the rate of ONE MILE PER DAY, on either a LEVEL or UNLEVEL COUNTRY, at a cost of £1500 per mile for carriages to carry two tons of goods. See Engineer's Report of actual trials, and every required information, by applying to W. CROSSKILL, Ironworks, Beverley.

BERDAN'S MACHINE COMPANY.—Notice is hereby given, that

in consequence of alterations made in the arrangements with Mr. Berdan, which embrace the property in his inventions in foreign countries, the undertaking has been RE-MODELLED. THE ALLOTMENT OF SHARES on the original prospectus will NOT BE PROCEEDED WITH, and the public are referred to the office of the company, 17, Cornhill, for the new prospectus, which sets forth the names of the present directors and the officers.

By order of the Board, HYDE CLARKE, Sec.

FOR SALE, AND READY FOR DELIVERY AT A DAY'S

NOTICE, SIX OF BAGGS'S PATENT STEAM STAMPS. Two of Cornish build, £120 each; three of Welsh manufacture, £130 each; and one made in London, with all the latest improvements, £160.—Address, Mr. ISHAM BAGGS, Mining Journal office, 26, Fleet-street, London.

MACHINERY OIL of highly lubricating properties may be OB-

TAINED OF R. AND W. SMITH, BOW COMMON, MIDDLESEX, or of respectable oil merchants, at 3s. 6d. per gallon, in casks of not less than 25 gallons each. Samples on application.

TO OWNERS OF MINES AND COLLIERIES, MINE CAP-

TAINS, AGENTS, FARMERS, &c.—JOHN H. ROBINSON (late J. Oliver and Co.), GREASE MANUFACTURER, OIL REFINER, &c., NEWCASTLE-ON-TYNE.—Office, 62, Close.

Oils for Machinery of every description, Pine Oil, Patent Grease, &c.

SHARES WANTED.—Mr. RICHARD TREDINNICK, No. 42,

LOMBARD STREET, LONDON, DEALS IN every description of MINING, RAILWAY, BANK, INSURANCE, and other SHARES GOVERNMENT FUNDS, and PUBLIC SECURITIES.

Mr. TREDINNICK is constantly in the markets, and possesses unusually great facilities for the purchase and disposal of mining and other negotiable securities; and as he is ostensibly a DEALER IN SHARES, he respectfully offers his services to the public both as buyer and seller, through which the usual commission paid to a broker can be saved. Mr. TREDINNICK charging only the market price of the day, being satisfied with the difference between the buying and selling price at the time the order is executed. Current lists of prices, and statistical information, acquired over 15 years' residence in Cornwall, and 10 years' experience in the London Share Markets, furnished gratuitously upon personal application by residents in the metropolis, or written communications from the provinces.

Mr. TREDINNICK can confidently recommend the following mines for investment; most of them pay dividends bi-monthly or quarterly, whilst the residue are situated in good localities, having analogy in their favour, and from the work done and money expended under practical management, are fast approaching profitable positions:—

Bedford United Kirkcudbright West Caradon Severn United
Bottalack North Pool Wheel Arthur
Bryntall South Caradon Leeds Town Consols Mill Pool
Carn Breck South Caradon North Caradon
Devon Great Consols Spanish Consols South Ding Dong
Dolcoath Truncheon Consols Balncon Consols
East Margaret Exmouth and Adams Boscan
Mr. TREDINNICK is also generally in a position to BUY or SELL in the following

mines, although he does not recommend them for investment:—
Alfred Consols Trevelyan Wheel Gold
West Alfred Consols Herodfoot Trevelyan
Great Alfred Consols West Bassett Trevelyan
Carn Breck East Caradon
East Pool Clive United
Comford Clive United
South Tamar Crow Hill
Wheal Messer Crow Hill
East Tamar West Providence
Trethane

AN INTEREST can be secured by two or three gentlemen of first respectability in TWO MINES, possessing considerable merit, upon most advantageous terms, the leases of which have only recently been secured.

MINING, AND GOLD DIGGINGS, SPECULATIONS.

Mr. HOPKINS has RESUMED his PROFESSIONAL DUTIES in LONDON, as CONSULTING ENGINEER on MINERAL PROPERTIES, &c. All letters on business to be addressed as under for the present.

His clients will receive in a few days every information relative to the Gold Regions of Australia, and what is required to ensure success to public companies in that part of the world.—38, Thurlow-square, Brompton, 3d March, 1854.

GOLD MINES, AND OTHER MINING SPECULATIONS,

HOME AND FOREIGN; their EXPLORATIONS and SYSTEM OF REDUCTION, &c.—Capitalists and others requiring INFORMATION, or PERIODICAL ADVICE on the above, for their government, may obtain it on application to Mr. EVAN HOPKINS, C.E., 38, Thurlow-square, Brompton.

TO LEAD MINE AGENTS.—WANTED, at STONECROFT LEAD

MINE, near Hexham, a PERSON capable of LETTING, SUPERINTENDING, and MEASURING WORK; also of SURVEYING and KEEPING UP MINING PLANS and ACCOUNTS.—Application to be made to Mr. Wm. BENSON, Fourstones, near Hexham, on or before the 26th day of May next.—April 20, 1854.

A PRACTICAL MINE AGENT wishes to meet with a SITUATION

as MINE SURVEYOR or BAILIFF. References as to character and capability can be given.—Address, "G. S. P." care of W. Insall, bookseller, Dudley.

MUNDIC FOR SALE IN CORNWALL.—About 100 to 150 tons

may be had, delivered at Devon.—Application to be made, by letter, to Mr. H. SMITH, 10, King's Arms-yard, Moorgate-street, London.

LEAD ORE.—FOR SALE, about 20 tons of very rich ROUND or

POTTER'S ORE, for which tenders, stating the price per ton, delivered in the railway trucks at Skipton, will be received by Mr. EDW. of Grassington, Gargrave, Yorkshire, until the 29th inst. If barrels or other cases be required for packing, they must be provided by the purchaser.—Grassington, April 12, 1854.

GLENTOGHER MINE, COUNTY OF DONEGAL.—FOR SALE,

20 SHARES in this valuable and productive MINE.—Apply "J. H." Mining Journal office, 26, Fleet-street, London.

SLATE QUARRIES, CORNWALL.—An ADVANTAGEOUS

OPPORTUNITY now offers for WORKING within certain lands in the DISTRICT OF THE DELABOLE QUARRIES.—For terms, apply to Mr. W. D. KING, solicitor, Camelford, Cornwall.—Dated April, 1854.

ELIGIBLE INVESTMENT.—TO BE SOLD, TWO HUNDRED

SHARES in a well-established SLATE COMPANY, paying regular dividends. The shares are £1 each, fully paid up, and not subject to calls or liability. This is a promising and safe investment, and there is no doubt a year or two dividends will increase to 30 or 40 per cent., the demand for slate being unlimited.—Address "X. Y." Rickerby's Printing office, 73, Cannon-street, City.

SWANSEA COAL AND IRON COMPANY.—The directors of this

company give notice, that SHARES will be ISSUED AT PAR until the 1st of May next, to which time applications for the remaining shares will be received. 40, Gracechurch-street, London.

SWANSEA COAL AND IRON COMPANY.—TENDERS, for a

HIGH-PRESSURE HORIZONTAL STEAM-ENGINE, with ONE BOILER, equal to 40-horse power, are invited to be sent to the directors of this company, on or before the 1st of May.—Marked on the outside, "Tender for Steam-Engine." 40, Gracechurch-street, London.

TO BE SOLD, BY PRIVATE CONTRACT, a FREEHOLD

FARMHOUSE, GARDEN, and FOUR CLOSERS OF LAND, containing together 7 A. 3 R. 19 P., with convenient outbuildings, situate at Frampton Cotterell, in Gloucestershire, about seven miles from Bristol, and two miles from Tate Station, on the Bristol and Gloucester Railway. The land contains iron ore of the best quality, which has been sampled and carefully analysed by Messrs. Johnson and Mather, of Hatton-garden, London, and, upon an average sample taken from different parts of the land at a depth of 2½ ft., is certified to contain 60 per cent. of good pig-iron.—For further particulars, apply to Mr. EDWARD JOHN HORTON, solicitor, Furnival's Inn, London.

WESTMINSTER IMPROVEMENT BOND OF £500 TO BE

SOLD FOR £390; incorporated by Act of Parliament, and payable in 1857, bearing interest at 5 per cent., payable half-yearly, the next payment 10th July. Apply to Mr. BROWN, 2, Adams-court, Old Broad-street, City.

TO BE LET, an extensive MINERAL PROPERTY in Donegal,

IRELAND, containing several fine LEAD LODES.—For particulars, apply to Messrs. BARBER and BARRETT, mining engineers, Cardiff.

TO BE LET FOR A TERM OF YEARS, OR SOLD, a valuable

TRACT, containing all the well-known VEINS OF ANTHRACITE COAL and IRON MINE of the county of GLAMORGAN.—For further particulars, apply to "D. E. F." Post-office, Neath.

BOTTLE HILL MINE.—Notice is hereby given, that a SPECIAL

GENERAL MEETING of the adventurers in this mine will be HELD, at the office as below, on Thursday, the 4th day of May next, at One o'clock in the afternoon, for the purpose of considering and agreeing to, or dissenting from, such alterations in the Cost-book Regulations as have been rendered necessary (and which alterations, and the circumstances rendering them necessary, will then be explained to the meeting), and also to consider particularly the alteration or re-modelling of the 6th and 7th of the said Regulations, for the purpose of giving to the committee of management of the said undertaking new and more complete powers to make and enforce calls for the purposes of the adventure on such shares as shall have been registered, and to declare all such shares forfeited in case of non-payment of the calls thereon; and, further, that a GENERAL MEETING of the adventurers in the said mine will be HELD, at the place aforesaid, on the same day, after the above special general meeting on the ordinary business of the undertaking. G. KIECKHOFFER, Sec.

50, Threadneedle-street, London, April 18, 1854.

GREAT CRINNIS COPPER MINE.—Notice is hereby given, that

a GENERAL MEETING of the adventurers in the above mine will be HELD at the offices of the company, 26, Austinfriars, on Saturday, April 29, 1854, at Three o'clock, P.M. precisely. By order of the Board, R. C. MANUEL, Sec.

Dated this 18th April, 1854, 26, Austinfriars.

GREAT POLGOOTH.—A GENERAL MEETING of the share-

holders in this mine will be HELD on Monday, the 24th inst., at One o'clock, at the London Tavern, Bishopsgate-street, to receive the Report of the Committee and quarterly account, and to take the opinion of the shareholders upon certain rules and regulations which were submitted at a general meeting held 17th January last.

WM. C. FOULKES, Sec.

NEW POLGOOTH AND WOODCROFT.—A MEETING of the

shareholders in this mine will be HELD as above, immediately after the termination of the business relating to Great Polgooth Mine, for the purpose of appointing the few remaining unallotted shares, and for general business.

WM. C. FOULKES, Sec.

TAMAR MARIA MINE.—Notice is hereby given, that the QUAR-

TERLY GENERAL MEETING of shareholders will be HELD at the George and Vulture, Cornhill, London, on Saturday, the 29th inst., at One o'clock precisely; and immediately after the ordinary business such meeting will be made SPECIAL, to confirm or otherwise the forfeiture of certain scrip shares which have been called in for exchange (the number of shares having been reduced from 10,000 to 7500); and upon the shares so deliverable in exchange a call of 2s. 6d. per share was made by resolutions passed at a special general meeting, held on the 10th January, and which resolution was confirmed at a like meeting, held on the 6th February last. The numbers of the shares upon which the said call is unpaid have been forfeited by the committee, and unless paid previously to the general meeting hereby convened, the forfeiture thereof will be submitted for confirmation.

Dated this 15th day of April, 1854. By order, HENRY PERRY, pro

WHEAL SAMSON.—Notice is hereby given, that the GENERAL

QUARTERLY MEETING of shareholders in the above mine will be HELD at the offices of the company, 17, Cornhill, on FRIDAY, the 28th inst., at Twelve o'clock precisely, instead of Wednesday, the 26th inst., such being appointed as a general fast-day.

GAILT-Y-FFRITH-RHEDYN LEAD MINING COMPANY,

is formed for the purpose of working the celebrated Old Frith-Rhodyn Mines, situate about three miles from Llanrwst, in the county of Denbighshire, North Wales. In 12,000 paid-up shares of £5 each.—No further liability to be incurred. The shares to be issued in certificate to bearer of five shares each; no deed to sign, nor need any person purchasing shares sign the Cost-book until the first dividend meeting.

BANKERS—The London and County Banking Company, Lombard-street.

MANAGER AT THE MINE.—Capt. George Davey.

The lease of this company's property, dated 1st March, for 21 years, has been granted to trustees. Parties who have subscribed, or are desirous of subscribing, for shares are hereby requested to pay their respective amounts to the bankers of the company, whose receipts they can exchange for scrip certificates to bearer, on presentation to the company's offices, 9, Austinfriars, where prospectuses may be had, and samples of the ore seen.—March 10, 1854. H. HUNTER, Sec.

LAKE SUPERIOR COPPER MINES.—MR. JOHN A. CALLENDER will start very shortly on his SECOND EXPEDITION TO THE COPPER REGIONS OF LAKE SUPERIOR, for the purpose of INVESTING BRITISH CAPITAL in mineral, agricultural, and other lands in Canada and the States, under circumstances so unusually advantageous and promising as to be well worthy of consideration. Mr. Calender will also undertake to explore, inspect, and report upon undeveloped mines or mineral property in any part of North America. Prospects, and full information, may be obtained on application. Address, 13, Clarenceville Villas, Belgrave-road, St. John's-wood; or apply, between the hours of One and Four, at 126, Bishopsgate-street.

FURTHER GOLD DISCOVERIES.
THE CAPE OF GOOD HOPE AND NATAL COAL AND GENERAL MINING COMPANY.—Capital £200,000, in shares of £1 each. OFFICES.—No. 1, MOORGATE, LONDON.
The Committee direct attention to the fact, that recent advices announce the DISCOVERY at the CAPE OF GOOD HOPE and NATAL of both GOLD and COPPER. Unallotted shares may still be obtained on application at the offices. It is computed that investments in this company will yield a dividend of more than 30 per cent.
By order, R. B. BEHNSA, Sec.

BRUCUTU GOLD MINING COMPANY.—By the Brazilian packet *Severn*, Capt. WM. TRELOAR has ARRIVED from RIO DE JANEIRO, having completed the examination he had been sent to make of the Brucutu Gold Mining Property. Some gold had been extracted during these operations of mere investigation, and he has forwarded from Southampton a very able and very satisfactory report of the Brucutu property, which is open for the inspection of shareholders bringing their shares, at the offices of the company. The Congo and Cocora formations, and a formation of its own, are to be found in the Brucutu estate, and in an entirely virgin state; and Capt. Treloar states "that in the extent opened in these formations rich groups of shoots of gold have been found, which are entire below water level."
By order, JNO. GATLIFF, Sec.
38, Old Broad-street, April 17, 1854.

CLARENDON CONSOLIDATED MINING COMPANY OF JAMAICA.—Notice is hereby given, that the ADJOURNED FIRST ANNUAL GENERAL MEETING of the CLARENDON CONSOLIDATED MINING COMPANY OF JAMAICA will be HELD at the London Tavern, Bishopsgate-street, in the City of London, on Monday, the 24th of April inst., at One o'clock precisely.
By order of the Board, JOHN E. LOHR, Sec.
29, Moorgate-street, London, April 17, 1854.

LAKE BATHURST AUSTRALASIAN GOLD MINING COMPANY.—The Committee of Investigation appointed by the shareholders hereby give notice to holders who have not registered their shares at the office of the undersigned, 17, King's Arms-yard, Moorgate-street, London, that the REGISTER LIST will be CLOSED on SATURDAY, the 29th April inst. H. GUDALL, Sec.

QUARTZ ROCK MARIPOSA GOLD MINING COMPANY.—At the ANNUAL GENERAL MEETING of the company, held at the London Tavern this day, Alderman JOHN CARTER in the chair,
It was unanimously resolved:—
That the directors' report, and balance-sheet, with the auditors' report, now submitted, be received, approved, and adopted, and the proceedings confirmed.
That the directors be and are hereby empowered to issue and dispose of the 16,000 unissued shares of the company's stock, giving the present holders of shares the option of taking same at par, and shareholders desirous of availing themselves of such option are requested immediately to deposit their scrip at the office of the company, 26, Throgmorton-street, City, when a letter of allotment for the payment of the amount of their proportion of new shares (being at the rate of 38 for every 100 original) will be delivered; and no scrip will be received after Monday, the 24th inst.
By order, JAMES WADDELL, Sec.
26, Throgmorton-street, April 15, 1854.

QUARTZ ROCK MARIPOSA GOLD MINING COMPANY.—NOTICE.—The shareholders are informed that, in pursuance of the resolution of the General Meeting of Shareholders, held at the London Tavern this day, the Directors have resolved to ISSUE the REMAINING SHARES of the company to the present holders, pro rata per cent; and shareholders desirous of availing themselves of such option are requested immediately to deposit their scrip at the office of the company, 26, Throgmorton-street, City, when a letter of allotment for the payment of the amount of their proportion of new shares (being at the rate of 38 for every 100 original) will be delivered; and no scrip will be received after Monday, the 24th inst.
By order, JAMES WADDELL, Sec.
26, Throgmorton-street, April 15, 1854.

WEST GRANADA (OR VERAGUAS) GOLD AND SILVER MINING COMPANY.—The Directors beg to announce to the shareholders that, at a SPECIAL GENERAL MEETING held this day, pursuant to advertisement, the following resolutions were passed unanimously:—
1. That the report now read be received and adopted; and that the following gentlemen be appointed a committee, with full authority to carry out the recommendations contained in that report:—viz., Geo. T. Braine, Esq., Geo. Clive, Esq., S. W. Davies, Esq., Major Mayne, Esq., Jos. Thompson, Esq., Chas. Barber, Esq., Capt. Charrette, Fred. Mangles, Esq., Benj. Shaw, Esq., Geo. Tate, Esq.
2. That the thanks of this meeting be given to the committee appointed at the special general meeting of the shareholders, on the 29th ultimo, for their assistance to the shareholders and the directors.
3. That the directors of this meeting be given to the chairman for his conduct in the chair, and that the directors generally for their attention to the interests of the company, and their cordial co-operation with the committee.
The following is an extract from the report referred to in the preceding resolution (No. 1):—
1. That it is expedient to establish a new company, with 100,000 shares of 25s. per share, and representing a capital of £125,000.
That such company take an assignment of the effects of the present company, discharging all its debts and liabilities not exceeding £7000.
That shares and scrip of the present company shall be entitled to an equal number of shares or scrip in the new company as they hold in the present company upon payment of 5s. per share—2s. 6d. per share to be paid on the 15th of May, and 2s. 6d. on the 15th of August next. If the second instalment shall not be paid within 14 days after the latter date, such shares shall be absolutely forfeited.
2. That the taking over the debts and liabilities of the old company be contingent upon 50,000 shares being subscribed for, and the first instalment paid thereon.
3. That the company be provisionally registered. Bankers' receipts to be given for the first instalment of 2s. 6d. per share, and scrip to be issued after the payment of the second instalment, in exchange for the old scrip to be credited with 2s. 6d. paid.
4. The shareholders, or scripholders, preferring to pay 5s. per share in one payment, shall be entitled to receive the new scrip in exchange for the old immediately the total amount of £25,000 is subscribed.
5. That power be given the directors, with the consent of two-thirds of the shareholders, called specially for the purpose, to increase the capital of the company to £125,000.
With regard to the £20,000 residue of purchase money to the vendors, contingent upon the success of the company, the following modified arrangement be entered into with them:—The vendors shall have received 10 per cent. of the share upon the full amount of capital, the vendors and shareholders shall divide the balance of profit arising from the mine in equal proportions, until the sum of £20,000 shall be liquidated.
7. That a special general meeting be convened, as early as the rules of the company admit, for the purpose of carrying these arrangements into effect; and that instructions be given to the solicitors of the company to take the necessary steps for the dissolution and reconstruction of the company.
Notice is, therefore, hereby given, that all shareholders and scripholders who desire to avail themselves of the above arrangements, are requested to send their scrip to the offices of the company on or before the 15th of May next, when the subscription list for the 25s. shares in the new company will be closed.
No liability will be created by the scripholders forwarding the scrip pursuant to the above notice.
By order of the board, W. L. WEBB, Sec.
Offices of the Company, 11, New Bond-street, April 21, 1854.

WHEAL PROSPER, PETER TAVY.—In 6400 shares.
—In the *Mining Journal* of the 15th inst., the following special report on this mine appeared:—

"WHEAL PROSPER.—Agreeing to your request, I have inspected this mine, and I have not the least hesitation in saying that you have a very excellent mineral property, and exceedingly promising to be productive both for tin and copper, if not for gold. The set is very extensive, having the advantage of the junction of the hills and granite just in the midst of the set. All the Great Wheal Friendship lodes, as well as Wheal Jewel, and other lodes, pass through the whole length of Wheal Prosper set; and my firm opinion is, that when they are properly developed in this beautiful mineral ground, near the junction of the granite, they will, some of them, if not all, prove to be exceedingly productive. I observed a large iron lode, bearing in a north and south direction, crossing all the lodes above named; no doubt good results will be found near the intersection. I should recommend you to have samples of this lode tested for gold, tin, and iron. When the railway is brought to Tavistock, I think this would pay you well to work for iron alone; but as you have tens of thousands of tons of excellent peat in your set, close to hand, I cannot see why you cannot erect a small furnace, and run it into pig-iron on the spot: this would pay you well, as you would sell it to great advantage to the foundries in the neighbourhood of Tavistock and Plymouth, and no doubt the iron would be of excellent quality, by being smelted with peat instead of coals. I found the men were sinking a shaft from the surface to the adit, and Capt. Michell informed me they could break tin when they get below the adit; this, I have every reason to believe, as I saw the stones of tin which came from the adit; it is all very right and proper that this work should be carried on, but I should strongly recommend you, in addition, to have a shaft sunk on the course of that beautiful lode seen near the road westward, near the intersection of the iron lode before mentioned: by the beautiful ground, and the nature of the lode there seen, I have no doubt of good results at a shallow depth. You have an adit to the south of the one you are now sinking; the shaft is driven several fathoms, but as the mouth of it is nearly filled in, I could not inspect it; it was taken up from the banks of the River Walkham, and driven westward. From this Capt. Michell took me over about half a mile, and showed me the great south lode, this is a splendid large one, of great promise for tin, strongly coloured with iron, in beautiful tin-bearing ground. This alone is a real good speculation for a mining company, but when coupled with all the other lodes and prospects of this set, I do not know where to find a young mine in all the district that can rival this property. My advice and motto is—'Onward, and be sure of success.'"
Gunnis Lake, April 12. THOMAS ROSEWATNE.

N.B. A FEW HUNDRED SHARES TO BE DISPOSED OF in this highly promising mining enterprise UNDER PAR, in consequence of the owner leaving for Australia. See list of mines in *Mining Journal*.—Application can be made to Mr. Gurney, mining commission agent, 4, Corbet-court, Gracechurch-street, who has the plan of the estate, showing its connection with the Friendship lodes.

CAPITAL STEAM-ENGINE AND BOILER, UPON THE BALLYHICKEY MINE, ENNIS, COUNTY CLARE, IRELAND.

MR. C. WARTON is directed to SELL, BY AUCTION, at the Mart, opposite the Bank of England, on Thursday, 27th of April, at Twelve, the capital STEAM-ENGINE, of 20-hp. cylinder, with double steam case, drain, nozzle, and pipes complete, 6 ft. stroke, wrought-iron shaft, fly-wheel about 4 tons, 3 ft. crank, pumping gear, and a heavy hammer attached; also the WROUGHT-IRON BOILER, 24 ft. long, 5 ft. 9 in. diameter, and 3 ft. tube, about 7 tons, manufactured within a few months, at the Hayle Works, and is altogether a very fine machine for mining purposes, which could now be obtained without considerable delay.
May be seen upon application to Capt. J. PAUL, on the mine, of whom particulars may be had. Particulars also at Macken's Hotel, Dorset-street, Dublin; at the Mart, London; and of Mr. C. Warton, auctioneer and estate agent, 38, Threadneedle-st.

SHARES IN SEVERAL PROMISING BRITISH MINING OPERATIONS IN DEVON, CORNWALL, &c.

MR. C. WARTON is directed to SELL, BY AUCTION, at the Mart, London, early in May, above ONE THOUSAND SHARES in various established and promising BRITISH MINES, which are now in course of development with vigour, and all the aids of modern science; offering very improving returns for the capital, especially in the present unusually depressed state of the public markets, from which a re-action may be fairly expected. They comprise Treviskey and Barrior, Carnyorth, Penhanger, Wheal Williams, Trebrigg, North Hingston, Crowdown Mines, &c.—Particulars may be had in due time at the Mart, London; Town Hall, Turin; and Mr. C. WARTON, 38, Threadneedle-street.

VALUABLE MINING MATERIALS, STEAM PUMPING ENGINE, BOILER, &c., TOGETHER WITH MINE SETS, FOR SALE, in one or more lots as may be agreed to at the time of sale.

MESSRS. BELLINGER AND BOYNS WILL SELL, BY PUBLIC AUCTION, on Thursday, the 27th day of April inst., at Eleven o'clock in the forenoon, precisely, at WHEAL ENNIS, in the parish of St. Erme, near Truro, the whole of the valuable MINING MATERIALS, consisting of a 30 in. cylinder STEAM PUMPING ENGINE, 9 ft. stroke in the cylinder and 3 ft. in the shaft, an 8 tons boiler, balance bob, capstan, shears, and 9 in. capstan rope.

18 in. pumps, 9 ft. long.	8 in. windrose, 9 ft. long.
11 in. plunger-pole, 10 ft. long.	9 in. pumps, 9 ft. long.
11 in. pole-case, 9 ft. long.	6 in. plunger-pole.
10 in. working piece, 11 ft. long.	6 in. H-piece, 2 ft. 5 in. long.
10 in. working piece, 10 ft. long.	6 in. do. piece, 2 ft. 5 in. long.
10 in. windrose, 9 ft. long.	2 doors and dead flange.
10 in. do. piece, and door for ditto.	6 in. windrose, 4 ft. long.
10 in. do. piece, 3 ft. 6 in. long.	10 in. pole-case, 9 ft. long.
10 in. do. piece, 3 ft. 6 in. long.	Stuffed-box and gland, 50 fms. of main rod, 8 in. square, with strapping plates, &c., complete.
10 in. H-piece, 3 ft. long.	27 in. boxes and prongs, complete.
Do. piece and dead flange for ditto.	60 fms. of iron stave ladders.
15 in. pumps, 9 ft. long.	60 fms. 4 in. air-pipes.
8 in. working piece, 11 ft. long.	
8 in. do. piece, 6 ft. long.	

Several sheaves and pulleys, shaft rollers, whim kiddles, smiths' and miners' tools, a quantity of new and old timber, new and scrap iron, miners' chests, barrows, carpenters' bench, slab and oven, account-house furniture, &c. Also the MINE SETS granted for 21 years, of which 11 and 17 years are unexpired.
The mine is immediately to view, and is within 1 mile of the great Tawstock Mine. The lodes and plans of the mine are in the hands of the auctioneer, and may be inspected at his office, No. 11, Fenton-place, Holywell, and for any information required as to its present condition and prospects, apply personally, or by letter, to Captain Abalom Francis, C.E., Halkin, near Holywell.
All persons having claims on Wheal Ennis, are requested to send the particulars thereof to Messrs. RUSSELL and DAVIES, solicitors, Penzance.
Dated April 10, 1854.

FLINTSHIRE.—TO CAPITALISTS, MINING SPECULATORS, AND OTHERS SEEKING FOR SAFE AND PROFITABLE INVESTMENTS.

MR. BELL respectfully announces that he has been favoured with instructions to SELL, BY PUBLIC AUCTION, on Thursday, the 27th day of April, 1854, at Two o'clock in the afternoon, on the premises, the SCORE SILVER-LEAD MINE; all the INTEREST in the LEASES thereof (at 12th April, 1854), nineteen years of which are unexpired, with the following MACHINERY:—viz., one 26-inch cylinder STEAM PUMPING-ENGINE, with valve gear, 67 yards of 2-inch pipe work, complete; two horse-whims, kiddles, ladders, rods, &c.; in short, the mine and materials in full course for work. Should the whole not be sold in one lot, the machinery and materials, or portions thereof, will be separately disposed of, or may be taken at a mutual valuation. This sale is determined upon in consequence of some of the partners having neglected to pay their calls. The mine is situated within five miles of Aberystwyth Station, on the Chester and Holyhead Railway, three miles from the city of St. Asaph, and thirteen from Holywell. It adjoins the well-known and productive Holywell Mine, and is within 1 mile of the great Tawstock Mine. The lodes and plans of the mine are in the hands of the auctioneer, and may be inspected at his office, No. 11, Fenton-place, Holywell, and for any information required as to its present condition and prospects, apply personally, or by letter, to Captain Abalom Francis, C.E., Halkin, near Holywell.

PEREMPTORY SALE OF STEAM-ENGINE, &c.

MR. GUMMOE is instructed to SELL, BY AUCTION, without reserve, on Tuesday, the 2d of May next, at Three o'clock in the afternoon, at the CORNUBIA UNITED MINES, in the parish of Roche, Cornwall, an excellent 60-hp. cylinder STEAM-ENGINE, 8 ft. stroke, equal beam, with a new 11 tons BOILER and FITTINGS, complete. The engine was manufactured by Messrs. Maudslay and Field, London, and will be found on inspection equal in every respect to new. For full particulars, apply to Mr. JOHN BORN, on the mine; and for further particulars, to the auctioneer, at his office, St. Austell.
Dated St. Austell, April 12, 1854.

SPARE MINE MATERIALS FOR SALE.

MESSRS. DAVIS AND SON, Auctioneers, Tavistock, have received instructions to OFFER FOR SALE, BY PUBLIC AUCTION, at WHEAL CREBOR, near Tavistock, on Tuesday, the 2d day of May next, at Two o'clock in the afternoon, the following valuable SPARE MINE MATERIALS, comprising:—
An oak axle for a 40 ft. water-wheel, 4 ft. breast, with saddles for the same.
Machine axle and sockets.
Large whim-axle, rings, and bars, with horse-bar.
2 large machine pulleys.
2 small pulleys.
2 shear pulleys.
Further information may be obtained on application to Capt. DAVIS, on the mine; and to the auctioneers, Messrs. DAVIS and SON, Tavistock. The sale will commence at Two o'clock precisely.

UNRESERVED SALE OF MALLEABLE IRON, CAST METAL, TIMBER, &c. METAL TUBBING, PUMPS, WORKING BARRELS, &c. STEAM-ENGINES; RAILWAY PLATES AND CHAIRS; SPEARS AND PLATES; SHEARS AND SHEAVES; being the entire NEW STOCK AND PLANT employed in WINNING the NEW COLLIERY near WINGATE GRANGE, on the Hartlepool Railway, in the county of Durham.

MR. GEORGE HARDCASTLE is authorised by the owners to SELL, BY PUBLIC AUCTION, without reserve, at the NEW COLLIERY WINNING aforesaid, on Monday and Tuesday, the 1st and 2nd of May, 1854, the whole of the entire NEW STOCK AND PLANT, consisting of:—120 tons of metal tubing; 60 tons of 21-in. strong new pumps, working barrels, &c.; 180 fms. 18-in. pumps, with spears, &c., in complete working order; 20 tons new spear plates; 600 ft. new red pine spears; 3200 yards malleable iron rails, 42 lbs. to the yard; 1400 railway chairs, &c.; 25 cwts. tram plates, &c.; spear, bucket-door, and crab bolts; ground bolts and bottom rods, chains, slings, &c.; earth waggons, bogies, and trams; fire lumps, sinkers' tools, cradles, and cradle bands; three jack-jobs, five crabs, frames; crab and gin-ropes, gin-harness; 3 cwts. oil lead; six barrels blasting powder, cartridges, &c.; old brass, brass buckets, an mangle, seven pairs shear legs, and pit pulley shafts; 100 lbs. of iron, fish-bone, open-jointed, crank-falls and swords, buckets and spears; railway weighing machine; scale beam, scales and weights; 4000 fire-bricks; a large quantity of valuable red and yellow pine, memel, elm, and oak squared timber; large Norway spars; ashlar freestone; new oak crab main pieces; five malleable iron water and sand tubs; the entire contents of the office, and sinkers, smiths, and joiners' shops; warehouse, stable, &c. Together with a great variety of most valuable miscellaneous colliery winning stock, the whole of which must be disposed of at the present sale, without the slightest reservation.
The sale to commence on Monday, the 1st of May, at Eleven o'clock, and to continue at Twelve; and sale resumed at One. Catalogues may be obtained on and after Wednesday, the 26th inst., upon application at the Sunderland Sale Office.
PAYMENTS.—Under £20, in cash; £20 and upwards, in approved bills at four months, or 2½ per cent. discount will be allowed for cash.
N.B.—The winning is situated close to, and in connection with, the Hartlepool Branch of the York, Newcastle, and Berwick Railway.
Sunderland Sale Office, April 11, 1854.

ARGUS FOUNDRY, SAVILLE-STREET, WEST-END, LEEDS.

MR. EDWARD RAISBECK begs most respectfully to announce that he is favoured with instructions from the assignees of Messrs. Blackburn and Stiebel, to OFFER FOR UNRESERVED SALE BY AUCTION, on Tuesday, Wednesday, and Thursday, the 9th, 10th, and 11th days of May, 1854, at the Argus Foundry, Saville-street, West-end, Leeds, ALL the various FOUNDRY and ENGINEERING TOOLS and IMPLEMENTS, consisting of three powerful cranes, a large quantity of moulding boxes, of various sizes, hand and crane ladders, a quantity of new and old metal, and foundry tools of all descriptions, BOILER MAKERS' AND SMITHS' TOOLS, including two punching and shearing machines, plate bending rolls, bending blocks, portable hearths, anvils, vices, bellows, &c.; together with various other articles connected with a large establishment.

THE ENGINEERING DEPARTMENT comprises two travelling portable engines, unfinished; also two horizontal high-pressure steam-engines, 15-horse power, unfinished; ONE LARGE UPRIGHT BORING MILL; excellent slide lathes; drilling screwing, slotting, and planing machines; axle slotting machine, wheel turning lathe, railway wheel makers' tools, axles and tyres, ready for use; single and back gear lathes, cranes, hangers, shafts, straps, and gearing. Also several tons of bar and rod iron, cast and shear steel, from 10 to 15 tons of scrap and useful smiths' iron, an excellent assortment of files; also a valuable collection of models of various descriptions, including several sets of models for condensing and high-pressure steam-engines, bevil, mitre, and spur wheels, &c., &c.

COUNTING-HOUSE FURNITURE, consisting of double and single desks, drawing table, with drawers; Hockinson's patent steam indicator, copying press, wood cupboards, chairs, stools, fender, fire-iron, &c.
Catalogues are now preparing, and may be had seven days prior to the sale, at the following places:—viz., the Sun Inn, Bradford; Messrs. A. Pulman and Son's, Iron Merchants, Halifax; the Royal Hotel, Dewsbury; the White Swan Inn, Huddersfield; and at the offices of the auctioneer, No. 6, Calla, Leeds, and will be sent by post on application to him, enclosing four postage stamps.—Sale to commence each day at Eleven o'clock a.m.
For further information application may be made to the auctioneer; or to Messrs. CARPIS and CUDWORTH, Solicitors, 7, Albion-street, Leeds.

THE GWYDRE SLATE AND SLAB WORKS, NEAR FFESTINIOW, NORTH WALES.

MR. LEIFCHILD is instructed by the Proprietors to OFFER, for above well-known, important, and highly-valuable MINERAL PROPERTY, which offers a finer and more certain investment for capital than many others in the present state of the market. The quarry is advantageously situated by the side of the excellent road from Ffestiniog to Llanwrthwl, in the parish of Dolwyddelan, in the county of Carnarvon, and the workings commence on the level of the road, in the south-eastern face of the mountain, into which they extend in a north-westerly direction, the vein increasing rapidly in height and width as it advances. The space at present wrought out is about 10 ft. long by 37 ft. wide, and the height of the metal from the road is 60 ft. The depth of the "grass" is inconsiderable. The slate, which is bluish gray, and of undoubted quality, lies well for working, as the joints, which are of great length, are straight and with the cleavage planes. The buildings are all new, and are most substantially built, there is a large manufacturing plant, containing 14 sawing and planing lathes, with tramways from the quarry to the tables and for dressing sheds and bank, the whole being worked by a powerful water-wheel, 30 ft. in diameter, with 3 ft. 6 in. breast, for which the supply of water is ample and constant. The slate rock has been traced continuously beyond the limits of this quarry, and the best test of the quality of the slates and slabs is the fact that they are readily sold as fast as they are manufactured, at the best market prices. The whole concern is in first-rate working order, and there is immediate capability for making 50 tons per week, with a monthly increase of 10 to 15 tons more. The slates, when made, are carried to Trefriw Quarry, at a cost of 5d. per ton, which will be borne by the contractor of one or two miles of railway, which are now before Parliament. The quarry is held from Lord Willoughby d'Eresby, of Gwyddel Castle, on lease, at a nominal rent. The unprecedented and daily increasing demand for slates and slabs, both at home and for the colonies, renders this property most safe and profitable investment of capital, more especially as no outlay is required except for the actual getting and making of the slates. Particulars and conditions of sale, with a plan of the works, and also reports from mineral surveyors, may be had of Mr. Leifchild, who is fully authorised to treat for the property by private contract.
London, 62, Moorgate-street, Jan. 18.

WHITBY, YORKSHIRE.—PRELIMINARY ANNOUNCEMENT.

MR. WHEATLEY KIRK is instructed to PREPARE FOR SALE, BY AUCTION, early in May, 1854, the WHOLE of the valuable MACHINERY for PREPARING AND SPINNING FLAX, in the Mills in the Hopery at the Port of Whitby, Yorkshire.—Full particulars in future papers and catalogues, which are being prepared; and any further information may be had at the office of the auctioneer, 24, Princess-street, Manchester.

SPLENDID CONDENSING BEAM ENGINE.—In consequence of the engine-house having to be pulled down immediately, this magnificent ENGINE, which has a 35 in. cylinder, and 6 ft. 6 in. stroke, and warranted the manufacture of the far-famed Low Moor Ironworks Company, will now be SOLD, at a bargain. Apply to WHEATLEY KIRK and CO., 24, Princess-street, Manchester.

NEW PONDEROUS PLATE-BENDING MACHINE, will take in 6 feet.—WHEATLEY KIRK and CO., 24, Princess-street, Manchester, where all kinds of engineers and machinists' tools, steam-engines, railway plant, &c., are constantly on hand.

HIGHLY-FINISHED AND POWERFUL PLANING MACHINE will plane 18 ft. long, 3 ft. 10 in. wide, and 4 ft. 4 in. deep.—WHEATLEY KIRK and CO., 24, Princess-street, Manchester.

NOW READY FOR DELIVERY, ONE EACH 8, 12, and 20-horse HIGH-PRESSURE HORIZONTAL ENGINES, admirably adapted for mining or other purposes; all warranted.—WHEATLEY KIRK and CO., 24, Princess-street, Manchester.

MERIONETHSHIRE, NORTH WALES.

GLANTYMOWDACH GOLD AND COPPER MINE TO BE DISPOSED OF, BY PRIVATE CONTRACT.—This mine is situated within a mile and a half of the sea-port of Barmouth, adjoins the turnpike-road to Dolgellau, and has a fine navigable river, on the banks of which wharves may be constructed for the shipment of ore. The ground is intersected with veins of quartz in sight on the surface along the whole length of the take, which carries nearly 100 acres, and they are supposed to be identical with the celebrated Clogau, Clogau, and Prince of Wales gold veins.—For further information and to apply to Mr. JOHN JONES, solicitor, Dolgellau, at whose office a map of the premises may also be obtained.

TWO TIN SMELTERS, GOLD REDUCERS, ENGINEERS.

BREWERS, &c.—TO BE LET, for a term of seven, fourteen, or twenty years, with immediate possession of those substantially-built and extensive premises, situated in St. Austell-street, in the parish of Truro, and known as the "TIN SMELTING WORKS," lately in the occupation of the Governor and Company of Copper Miners of England, comprising the necessary BUILDINGS, OFFICES, and FURNACES necessary for carrying on an extensive tin smelting business, together also with a commodious YARD and QUAY, immediately abutting on the Tidal river. These works have been recently constructed at great expense on a superior plan, are within easy distance of productive tin mines, and afford unusual facilities for obtaining coals and shipping off block tin and other merchandise. They also include the immediate locality of extensive commercial wharves, where many supplies of all kinds are kept, and from which back carriage may be had, greatly lessening the expense of conveying tin ores to the works. These works are also admirably extensive to admit of the reduction of ores containing gold, lately ascertained to abound in Cornwall, or they may, at a trifling expense, be converted into an iron foundry and engine manufactory, or into a complete brewery.—Applications (on principals only) to be made to Mr. SAMUEL MOTTS, Rosvigo House, or to Messrs. HOUSE and HOCKIS, solicitors, Truro.

TWO CONTRACTORS AND OTHERS.—APPOLO PUMP AND STEAM-ENGINE FOR SALE.—TO BE SOLD, a capital HIGH-PRESSURE STEAM-ENGINE, of 15-horse power, with two boilers, complete. Also, an APPOLO PUMP, capable of raising 3000 gallons of water per minute, with the driving machinery, as attached to the 15-horse engine. Also, a MILL for GRINDING MORTAR. The whole are in good working condition, and are to be sold cheap, at the works upon which they have been used are finished, and the proprietors have no further use for them.—The above may be seen at the New Harbour Works, Shoreham, near Brighton; and price and particulars intimated upon application to Messrs. GARY and AMOS, Grove, Southwark.

TWO MASONS, CARPENTERS, AND CARRIERS.—TO BE LET, BY TENDER, at WHEAL SUSAN, in the parish of Kithley, Cornwall, the WALLS of an ENGINE-HOUSE, BOILER-HOUSE, and STACK; also a SMITHY and CARPENTERS' SHOP, BURNING-HOUSE, STORE-HOUSE, COUNTING-HOUSE, YARDS, &c., to BUILD, at per perch; and also the CARPENTRY WORK of the said buildings, and the CARRIAGE OF STONE from the quarry. All the materials to be delivered on the spot at the expense of the mine, but the masons to mix and prepare the mortar, &c.—For further particulars, application may be made to Messrs. SIMS and SON, engineers, Redruth; to Capt. JAMES BENNETT, Truro; or to Mr. Heston, near Helston; or to Mr. DAVIEL, of Camborne; to whom tenders must be addressed on or before the 6th day of May next.

Dated Wheal Susan, Tin and Copper Mine, Kithley, April 15, 1854.

TWO PATENT FUEL MANUFACTURERS AND PATENTEES.

The proprietors of a new colliery, situated within 1½ mile of a sea-port railway in South Wales, are prepared to enter into a CONTRACT to DELIVER a LARGE QUANTITY OF COAL, particularly adapted for the manufacture of gas fuel. Land may be had for the erection of works at the colliery, or the coal may be delivered at the port or railway station. Further particulars may be obtained from the proprietors or solicitors. In the first instance, address to "E. L. V. Castle and Lamb's Advertising Office, 7, Bull Head-court, Newgate-street, London."

TWO IRONFOUNDERS AND GASHOLDER MAKERS.—PARTIES

desirous of CONTRACTING for the CONSTRUCTING and ERECTING of a GASHOLDER (single lift), on the premises of the WAKEFIELD GAS LIGHT COMPANY, 100 feet diameter, and 40 ft. 4 in. deep, together with all the required COLUMNS, GUIDE RODS, GIRDERS, INLET and OUTLET PIPES, STOPVALVES, PUMPS, &c., may inspect the plans, sections, and specifications, and make a formal tender, at the offices of Mr. Clapham, civil engineer, and surveyor, 24, Barrow-square, and after Wednesday, the 18th April, and until Monday, the 1st day of May, inclusive, by which last-named day, and not later than Two o'clock in the afternoon, sealed tenders, endorsed "Tender for Gasholder," must be delivered at the said Mr. Clapham's offices. The lowest tender may or may not be accepted.
24, Barrow-square, Wakefield, March 28, 1854.

ORIENTAL GAS COMPANY.—TO GAS ENGINEERS.

THE DIRECTORS of the ORIENTAL GAS COMPANY require the SERVICES of a GENTLEMAN of energy, ability, and practical experience, competent to erect gas works, to undertake the management of all alterations, and repairs, and generally to superintend the business of the company. Calcutta, under a committee.—Applications, stating full particulars of former experience, testimonials, and references, and the amount of salary required, to be addressed to the Board of Directors, at the offices of the company, 127, Leadenhall-street.

TWO GAS COMPANIES.—CLAY PURIFICATION OF GAS.

No cheap process has yet been discovered for freeing gas from ammonia, and the removal of the bluish-purple of carbon (the monster nuisance of gas burning) has been given up in despair. CLAY REMOVES BOTH THESE IMPURITIES, and when taken from the purifiers the bluish-purple of carbon is visible, completely removed. The illuminating power of the gas is increased in proportion to the thorough purification.
THE PROPRIETORS of this PATENT are now READY TO GRANT LICENSE for its use.—Terms and directions for its employment may be obtained from Mr. WHITAKERS, agent to the patentees, Gas-works, Wakefield.

GAS WORKS.—TO BE LET, BY TENDER, for a term of 14 years, or 14 years, from the 1st day of October next, by the GAS LIGHT COMPANY of BARNSTAPLE, the WHOLE of their WORKS, PLANT, and MACHINERY, for supplying the town of Barnstaple with gas.

The works comprise a convenient dwelling house, garden, and large new gas-works, with a coal-shed, workshop, store-rooms, and two gasometers, which have been carried through all the principal streets of the town, supplying nearly all the gas-works, and numerous private families, and about 30 public lamps, with gas. The above were let in 1844 for a term of ten years, which will expire on the 1st day of October next; and the new lease will be required to take at a valuation of the existing lease. The taker will be required to take the company's gas at a valuation, with a right of charging a rental of 4s. for each ton of gas consumed. The taker will be required to enter into a lease, with security to be approved of by the company, containing the usual covenants, and engage to provide gas for the age of ten other towns, said to perform other contracts to which the company is bound with the public.
Further particulars may be known by applying to the secretary of the company, Mr. JOHN THOMAS, Barnstaple, to whom sealed tenders (endorsed "Tender for Gas Works"), are to be delivered on or before the 1st day of May next. The company do not pledge themselves to accept the highest tender.
Barnstaple, April 11, 1854.

11s., and 33s. per box, with full directions for use; or, by enclosing Post-office stamps to Dr. De Roos, 35, Ely-place, Holborn-hill, London, they will be sent return. At home for consultation daily from Eleven till Four o'clock, Sunday except. Advice and medicines, &c.

THE MINING SHARE LIST.

Shares.	Mines.	Paid.	Last Price.	Present.	Dividends per Share.	Last Paid.
5120	Alfred Consols (copper), Phylack	£2 10s	£3 10s	1 1/2	£10 10 0	£0 14 0—March, 1854.
8000	Altgoth Consols Slate Quarry	2	1 1/2	1 1/2	0 1 0	0 1 6—Feb., 1854.
2000	Anglo-Saxon Coal Company	4	4 1/2	4 1/2	0 1 0	0 2 0—Nov., 1852.
1024	Balteswidden (tin), St. Just	11 1/2	6 1/2	6 1/2	12 5 0	0 5 0—Jan., 1854.
5000	Bat Holes, Worthen, Salop	15 10s	6 1/2	6 1/2	0 10 0	0 10 0—April, 1853.
4000	Bedford United (copper), Tavistock	3 1/2	8 1/2	8 1/2	5 11 6	0 6 0—Feb., 1854.
5000	Black Craig (lead), Kirkcubrightshire	5	1	1	0 5 0	0 2 0—July, 1853.
124	Bowdell and Wheel Castle	20	1	1	0 5 0	0 5 0—May, 1853.
1000	Bottalack (tin, copper), St. Just	9 1/2	370	370	285 5 0	10 0 0—April, 1854.
1000	Bryntail, Llanidloes, Montgomeryshire	7	5	5	0 5 0	0 5 0—June, 1851.
5000	Callington (lead, copper), Callington	74 17s	2 1/2	2 1/2	1 8 0	0 4 0—Sept., 1847.
1000	Carn Brea (copper, tin), Illogan	15	88	88	227 10 0	2 0 0—March, 1854.
256	Comford (copper), Gwennap, Cornwall	75	18 1/2	18 1/2	50 0 0	3 0 0—April, 1854.
256	Condurow (copper, tin), Camborne	20	135	135	25 0 0	5 0 0—Sept., 1853.
128	Cunyweth (lead), Cardiganshire	60	150	150	376 0 0	9 0 0—March, 1853.
1024	Devon Great Consols (copper), Tavistock	1	425	425	376 0 0	0 1 5—Nov., 1853.
12000	Dhurroo (copper), Ireland	1	5	5	35 0 0	—1850.
672	Ding-Dong (tin), Gwulva	5	5 1/2	5 1/2	875 4 0	3 0 0—Feb., 1854.
179	Dolcoath (copper, tin), Camborne	257 1/2	93 1/2	93 1/2	0 6 0	0 1 6—April, 1853.
124	Drake Walls (tin, copper), Calstock	14 1/2	1 1/2	1 1/2	4 0 0	2 0 0—Jan., 1853.
300	East Darren (lead), Cardiganshire	28	90	90	285 10 0	2 10 0—Feb., 1854.
128	East Foot (copper), Pool, Illogan	24 1/2	140	140	2345 0 0	10 0 0—March, 1852.
128	East Wheel Rose (silver-lead), Newlyn	5 1/2	12 1/2	12 1/2	0 5 0	0 5 0—Feb., 1854.
1024	East Wheel Margaret (tin, copper)	3 1/2	15	15	1 13 4	0 10 0—Dec., 1853.
200	Eyam Mining Company, Derbyshire	3 1/2	15	15	399 13 0	1 10 0—Aug., 1850.
404	Few Consols (copper), Tywardreath	40	30	30	39 7 3	1 0 0—April, 1854.
2240	Foxdale, Isle of Man	74 10s	25	25	0 18 0	0 10 0—April, 1854.
320	Ditto (New Shares of 25s. each)	10	25	25	1 0 8	0 3 3—June, 1853.
8715	General Mining Co. for Ireland (cop., lead)	2 1/2	2 1/2	2 1/2	22 0 0	5 0 0—Sept., 1850.
2000	Goginan (lead), Cardiganshire, Wales	4 1/2	16	16	0 7 6	0 7 6—Dec., 1852.
1024	Gonamena (copper), St. Cleer	12 1/2	14	14	0 2 0	0 2 0—June, 1852.
25000	Great Onslow Consols, Camelford	1 1/2	1 1/2	1 1/2	0 10 0	0 4 0—Oct., 1852.
13750	Great Polgoth (tin), St. Austell	3 1/2	1 1/2	1 1/2	0 10 0	0 7 6—Nov., 1853.
119	Great Work (tin), Gernoe	100	155	155	166 10 0	0 7 6—April, 1854.
1024	Herodfoot (lead), near Liskeard	8 1/2	9	9	25 0 0	0 5 0—Sept., 1844.
6000	Hingston Down Consols (copper), Calstock	2 1/2	14	14	3 5 0	0 5 0—March, 1854.
1000	Holmbush (lead, copper), Callington	2 1/2	7	7	380 0 0	5 0 0—March, 1851.
2000	Holyford (copper), near Tipperary	11	7	7	0 1 0	0 4 0—March, 1854.
76	Janniska (lead), Mold, Flintshire	31 13s	25	25	0 10 0	0 5 0—Sept., 1852.
20000	Kennmare and West of Ireland	1	2 1/2	2 1/2	0 1 0	0 1 6—Sept., 1853.
2000	Kirkcubrightshire (lead), Kirkcubright	6s. 7d.	2	2	0 4 0	0 4 0—March, 1854.
2000	Lackamore (copper), Tipperary, Ireland	9 1/2	2	2	0 1 0	0 5 0—Sept., 1852.
200	Laxey Mining Company, Isle of Man	100	1300	1300	0 2 0	0 2 0—Aug., 1851.
1000	Lewis (tin, copper), St. Erth	34 8s	2 1/2	2 1/2	1038 0 0	2 0 0—April, 1853.
1000	Lervant (copper, tin), St. Just	2 1/2	98	98	196 5 0	5 0 0—Nov., 1853.
400	Lisborne (lead), Cardiganshire, Wales	18 1/2	212 1/2	212 1/2	0 2 0	0 2 6—May, 1853.
6000	Marke Valley (copper), Caradon	47 10s	4 1/2	4 1/2	0 10 0	0 10 0—May, 1853.
5000	Mendip Hills (lead), Somerset	3 1/2	2 1/2	2 1/2	1 11 0	0 2 6—June, 1853.
5000	Merilyn (lead), Flint	2 1/2	1	1	9 2 0	0 10 0—Jan., 1854.
10000	Mining Co. of Ireland (copper, lead, coal)	7	15	15	0 2 0	0 1 3—Nov., 1853.
5000	Nantlle Vale (slate), Llanllyn	1	1 1/2	1 1/2	35 0 0	4 0 0—April, 1854.
470	Newtowns Mining Company, Co. Down	50 1/2	70	70	308 10 0	0 5 0—Feb., 1854.
200	North Pool (copper, tin), Pool	22	182 1/2	155	249 10 0	4 0 0—Sept., 1853.
140	North Rocks (copper), Camborne	10	150	150	2 10 0	0 5 0—Jan., 1854.
6000	North Wheel Basset (copper, tin), Illogan	10 1/2	9	9	23 6 0	0 10 0—July, 1853.
400	Par Consols (copper), St. Blazey	1 1/2	15 1/2	15 1/2	1 10 0	0 10 0—April, 1854.
200	Peak United (lead), North Derbyshire	1 1/2	13 1/2	13 1/2	1 15 0	0 10 0—June, 1851.
160	Perran St. George (cop., tin), Perranabuloe	21 1/2	32 1/2	30 3/2	50 0 0	10 0 0—Nov., 1853.
200	Phoenix (copper, tin), Linkinghorne	30	750	750	5 5 0	1 0 0—March, 1854.
1000	Poiborro (tin), St. Agnes	15	14	14	20 14 0	0 10 0—Feb., 1854.
560	Providence Mines (tin), Uny Lelant	20 1/2	19	19	0 8 0	0 4 0—Jan., 1853.
1948	Rix Hill (tin), Tavistock	3 1/2	2	2	0 2 2	0 2 2—July, 1852.
25200	Rorington (lead), Snailbeach, Shrewsbury	1	1 1/2	1 1/2	302 0 0	12 0 0—Feb., 1854.
256	South Caradon (copper), St. Cleer	2 1/2	310	310	1 7 6	0 5 0—March, 1854.
9000	South Tamar (silver-lead), Beerrifra	17 6s	8 1/2	8 1/2	69 0 0	4 0 0—May, 1853.
256	South Tolgus (copper), Redruth, Cornwall	16	130	130	337 5 0	0 5 0—March, 1854.
248	South Wheel Frances (copper), Illogan	37 1/2	250	250	8 17 6	0 7 6—April, 1852.
1024	Spearhead Consols (tin), St. Just, Cornwall	1 1/2	8 1/2	8 1/2	885 0 0	8 0 0—Feb., 1854.
1024	St. Aubyn and Grylls (copper, tin), Breage	3	2 1/2	2 1/2	12 10 0	—
84	St. Ives Consols (tin), St. Ives	8 1/2	180	180	4 11 0	2 0 0—Feb., 1853.
1000	Stray Park and Camborne Vein (copper)	10 1/2	10 1/2	10 1/2	6 18 0	0 10 0—Feb., 1853.
9000	Tamar Consols (silver-lead), Betton	4 1/2	2	2	6 13 0	2 6 0—March, 1853.
5000	Tucroft (copper, tin), near Pool, Illogan	4 1/2	2 1/2	2 1/2	1 3 0	0 10 0—March, 1854.
1024	Trehaun (silver-lead), Menheniot	1 1/2	1 1/2	1 1/2	1 3 0	0 5 0—Oct., 1847.
5000	Treleigh Consols (copper), Redruth	6	1 1/2	1 1/2	1 15 0	1 0 0—Feb., 1854.
572	Treloyn Consols (tin), St. Ives	11 1/2	30	30	4680 15 0	—April, 1851.
96	Trevelan (copper), Gwennap, Cornwall	32 1/2	330	330	403 10 0	4 0 0—March, 1854.
120	Trevelan (copper), Gwennap, Cornwall	7 1/2	12 1/2	12 1/2	10 10 0	0 5 0—March, 1854.
120	Trevelan and Barrier (copper), Gwennap	130	49 1/2	49 1/2	50 0 0	5 0 0—March, 1854.
4000	Trevelan (silver-lead), Menheniot, Cornwall	1	5	5	47 5 0	2 0 0—Feb., 1854.
100	Trumper Consols (tin), near Helston	95	150	150	2 2 6	0 5 0—March, 1851.
400	United Mines (copper), Gwennap	40	180	180	21 0 0	7 0 0—Feb., 1854.
1024	Wellington (copper, tin), Perranabuloe	8 1/2	3	3	245 255	245 255
256	West Caradon (copper), Liskeard	20	250	250	22 10 0	2 0 0—Jan., 1854.
1024	West Providence (tin), St. Erth	12 1/2	2 1/2	2 1/2	0 5 0	0 5 0—Dec., 1853.
1024	West Wheel Darlington (copper)	104 4s	104	104	0 10 0	0 10 0—May, 1853.
1024	West Wheel Treasury (copper), Calstock	9	31	31	1 5 0	0 13 0—Feb., 1854.
256	Wheel Arthur (copper), Calstock	10 1/2	720	700	520 0 0	25 0 0—April, 1854.
256	Wheel Brewer (copper), Gwennap	4	15	15	481 5 0	40 0 0—March, 1854.
256	Wheel Buller (copper), Redruth	5	1140	1140	3 13 8	2 6 0—March, 1853.
256	Wheel Clifford (copper), Gwennap	—	160	160	5 0 0	0 5 0—1850.
5120	Wheel Exmouth and Adams United	47 14s	9 1/2	9 1/2	2367 10 0	8 0 0—Oct., 1853.
120	Wheel Friendly (tin), St. Agnes	70	105	105	1 5 0	0 5 0—Sept., 1852.
128	Wheel Friendship (copper), Devon	10 1/2	15	15	4 10 0	2 0 0—Feb., 1854.
5000	Wheel Golden (silver-lead), Perranabuloe	4	2 1/2	2 1/2	215 0 0	13 0 0—March, 1854.
6000	Wheel James (tin, copper), Roche	1	1	1	28 15 0	2 0 0—March, 1854.
512	Wheel Jane (silver-lead), Kes	10 1/2	15	15	135 10 0	10 0 0—Feb., 1854.
430	Wheel Level (tin), Wendron	33	55	55	254 10 0	8 0 0—April, 1854.
112	Wheel Margaret (tin), Uny Lelant	79	200	200	41 10 0	2 0 0—Jan., 1854.
512	Wheel Mary Ann (lead), Menheniot	5 1/2	31	31	10 2 6	7 6 0—Jan., 1854.
80	Wheel Orles, St. Just, Cornwall	70	520	520	23 0 0	12 6 0—Feb., 1854.
240	Wheel Both (tin), Uny Lelant	20 1/2	27	27	0 1 0	0 1 0—Oct., 1853.
128	Wheel Seta (tin, copper), Camborne	107	30	30	254 10 0	8 0 0—April, 1854.
520	Wheel Trevelan (silver-lead), Liskeard	8 1/2	36 1/2	36 1/2	41 10 0	2 0 0—Jan., 1854.
1024	Wheel Tremayne (tin, copper), Gwennap	9 1/2	7	7	10 2 6	7 6 0—Jan., 1854.
5000	Wicklow (copper), Wicklow	5	5 1/2	5 1/2	23 0 0	12 6 0—Feb., 1854.
1000	Wrygan (slate), Festing	1	1 1/2	1 1/2	0 1 0	0 1 0—Oct., 1853.

FOREIGN MINES.

Shares.	Mines.	Paid.	Last Price.	Present.	Dividends per Share.	Last Paid.
5000	Alten Mining Company (copper), Norway	£14 1/2	3 1/2	3 1/2	4 5 0	0 15 0—Nov., 1853.
72000	Baden, Grand Duchy of	1	1 1/2	1 1/2	0 1 0	0 1 0—Nov., 1852.
10000	Brazilian Imperial (gold), Brazil	25	4 1/2	4 1/2	34 17 6	0 10 0—Dec., 1853.
2464	Burra Burra (copper), South Australia	5	167	167	140 0 0	5 0 0—Dec., 1853.
12000	Cobre Copper Company (copper), Cuba	40	41	39 41	61 12 0	2 0 0—Jan., 1854.
100000	Colonial Gold	1	1	1	0 1 6	0 1 6—March, 1854.
10000	Copahu Mining Company (copper), Chili	16	11	10 1/2	3 18 0	0 5 0—Oct., 1851.
20000	General Mining Assoc. (iron, coal), Nova Scotia	20	15	15	8 0 0	0 15 0—March, 1854.
10000	Linares (lead), Potosi, Bolivia	3	11	10 1/2	0 2 0	0 1 0—July, 1853.
10000	Mexican and South American (cop.), Mexico	9	6 1/2	6 1/2	5 5 0	0 7 6—Dec., 1853.
18715	North British Australasian	1	2 1/2	2 1/2	0 8 0	0 8 0—March, 1854.
92000	Obernberg (lead), Nassau	1	1	1	0 1 0	0 1 0—June, 1853.
17000	Royal Santiago (copper), Cuba	15	4	3 4	33 4 0	1 5 0—July, 1848.
104000	San Fernando (silver-lead), Linares	1	1	1	0 1 2	0 7 6—March, 1854.
11000	St. John del Rey (gold), Brazil	15	31	30 1/2	23 17 6	2 0 0—Nov., 1853.
45174	United Mexican (silver), Mexico	28 1/2	3 1/2	3 1/2	1 16 6	0 4 0—Feb., 1853.

NON-DIVIDING FOREIGN MINES.

Shares.	Mines.	Paid.	Last Price.	Present.	Dividends per Share.	Last Paid.
75000	Adelaide Land and Gold Comp.	2	2 1/2	2 1/2	—	—
25000	Almaden (silver-lead), Spain	1	1 1/2	1 1/2	—	—
10000	Australian (cop.), S. Australia	6	2 1/2	2 1/2	—	—
6000	Barrage Range	1 1/2	1 1/2	1 1/2	—	—
75000	Bracuta (gold), Brazil	1 1/2	1 1/2	1 1/2	—	—
70000	Clarendon Consols, Jamaica	1 1/2	1 1/2	1 1/2	—	—
125000	Gladsbach (zinc) Rhenish Pruss.	1	1 1/2	1 1/2	—	—
—	Idrian	1	1 1/2	1 1/2	—	—
15000	Jamaica (copper)	1	1 1/2	1 1/2	—	—
3000	Kingsblat Min. Ass., Germany	4	1 1/2	1 1/2	—	—
60000	Linares, New, (lead, cop.), Spain	1	1 1/2	1 1/2	—	—

MINES WHICH HAVE SOLD ORES.

Shares.	Mines.	Paid.	Last Price.	Present.	Dividends per Share.	Last Paid.
500	Abdon (porcelain & bleach, clay)	6 1/2	6 1/2	6 1/2	—	—
8000	Altarnun Con. (tin, cop.), Altar	2 1/2	2 1/2	2 1/2	—	—
4000	Augusta Con. (cop.), Bridestowe	1 1/2	1 1/2	1 1/2	—	—
540	Balnoon Con. (tin), Uny Lelant	3 1/2	2 1/2	2 1/2	—	—
4000	Balteswidden United	1	2 1/2	2 1/2	—	—
12000	Balteswidden (lead), Wicklow	1	2 1/2	2 1/2	—	—
3000	Beacon (tin), Roche	1	2 1/2	2 1/2	—	—
500	Bell and Lanneth, Gwennap	11	7 1/2	7 1/2	—	—
1000	Bulling Well (copper)	7	12	12	—	—
8000	Birtor Consols (lead), St. Ives	1 1/2	1 1/2	1 1/2	—	—
2000	Birtor and Vitter, Lysford, St. Ives	2 1/2	2 1/2	2 1/2	—	—